

- c. **Boundary Alternative (3) -- Preferred Alternative:** Expand Congressional boundary to include 100-fathom isobath around Big Island, parts of Oahu, and eastern Kauai, excluding specified ports, harbors, small boat basins.

This boundary alternative more adequately reflects humpback whale distribution and habitat use in the main Hawaiian Islands (primarily throughout the 100-fathom isobath region) than alternative (1) or (2). It is fully described in Part III(B)(2)(d), and shown in Figure III-5. Over 73% of the whales, and particularly the mother and calves, sighted in aerial surveys conducted during the 1993 season were found to be distributed in waters less than 100 fathoms deep (Mobley et al. 1993). Recent studies have also shown that humpbacks are highly mobile and transit between islands while residing in Hawaii (Cerchio et al. 1991, Cerchio 1994). Boundary alternative (3) takes these factors into consideration and incorporates the majority of humpback whale habitat. This alternative was also developed in response to particular comments from the public and whale researchers and experts during the scoping meetings, other public information meetings, and during the DEIS/MP public comment period. The boundary lines are based on humpback whale distribution data and provide more continuous statewide management regime for research, long-term monitoring, education, outreach and management programs throughout the main Hawaiian Islands.

Although humpback whales have been seen occasionally off the NWHI, less favorable oceanographic conditions including cooler and rougher waters may inhibit reproductive and nursing activities in this area, and research indicates that humpback whales do not use it frequently. Ports, harbors, and small boat basins are normally enclosed or semi-enclosed areas that support heavy levels of human activities. Vessel traffic, dredging, construction, and waste discharge produce noise and pollution which make these places less than ideal for humpback whale habitat.

While preferring the statewide boundary within the 100-fathom isobath, SRD recognizes the important role of the U.S. Department of Defense (DOD) in the Hawaiian Islands both to national security and to the Hawaiian economy. NOAA and the State of Hawaii have determined that not including certain military use areas in the Sanctuary boundary would facilitate military uses and training without compromising protection for humpback whales and their habitat. SRD has consulted with DOD on existing military activities in the Hawaiian Islands and has determined that DOD has institutional mechanisms in place to avoid and minimize disturbances to humpback whales (for a list of activities, see Appendix F). Military activities remain subject to all other applicable authorities (MMPA, ESA, Rivers and Harbors Act, etc.) in Hawaii, and the statutory provisions of the NMSA.

Military use areas and excluded ports, harbors, small boat basins are identified in Part III(B)(2)(d)(i) and III(B)(2)(d) and shown in Figures III-5 and III-11, respectively. The Sanctuary exclusion areas would not significantly diminish the Sanctuary's ability to provide comprehensive conservation and protection for the whales and their habitat.

The environmental impacts of this boundary alternative would be positive. The Sanctuary would have the ability to comprehensively protect humpback whales and whale habitat through education, research, and regulation throughout the majority of the humpback whale's habitat. Although the physical area of the Sanctuary would be smaller than the full statewide 100-fathom isobath and 1000-fathom isobath boundary alternatives (no major exemptions) described below, the protection, education, and management encompassed in the Sanctuary's programs would be extended to a larger portion of the humpback whale's wintering habitat than the status quo alternative or the areas of highest whale concentration.

This alternative expands the boundary scope beyond alternatives (1) and (2) to include most areas of the main Hawaiian Islands from the shoreline to the 100-fathom isobath except for

the waters around Kahoolawe; selected ports, harbors and boat basins; and specific military use areas around W. Kauai and Oahu. Taken in conjunction with the preferred regulatory alternative (3) which does not add any new substantive regulatory prohibitions, permit requirements or approvals beyond those already required by existing authorities, implementation of this boundary alternative is not anticipated to result in adverse socioeconomic impacts to the economy or to marine users within this boundary. Any research, education, coordination or enforcement initiated as a result of the Sanctuary will ultimately lead to a better understood marine environment and will benefit both human and non-human users of the area. Any impacts resulting from establishing the Sanctuary, positive (e.g., education, research, monitoring, public participation, enforcement and coordination) or negative (e.g., civil penalties) would affect this broader area.

- d. Boundary Alternative (4): Expand Congressional boundary to include 100-fathom isobath around the main Hawaiian Islands and Kaula Rock, and excluding specified ports, harbors, and small boat basins.

This boundary alternative is a variation of boundary alternative (3). It is fully described in Part III(B)(2)(e), and shown in Figure III-12. The difference is that this boundary alternative includes the waters around Kaula Rock, Niihau and all areas around Kauai and Oahu. Selected ports, harbors and small boat basins are not included, but military use areas around Kauai, Niihau and Oahu would be included in the boundary. This alternative, like alternatives (2) and (3), also responds to public comments received during the scoping meetings, other public meetings, and during the DEIS/MP public comment period calling for an expanded, uniform statewide boundary instead of a Maui County-only boundary. The boundary is based on humpback whale distribution data with the goal of providing a continuous management regime throughout the main Hawaiian Islands. Research, long-term monitoring, education, outreach and management programs are anticipated to be more effective if applied uniformly.

This boundary alternative more adequately reflects the humpback whale distribution and habitat use in the main Hawaiian Islands (primarily within the 100 fathom isobath) and Kaula Rock, especially those areas used by mothers and calves. It also includes the waters around Niihau and the western portion of Kauai, an area that researchers believe is or has always been (only recent focus on that area of the state for humpback whale research) an important humpback whale breeding and nursing area (Mobley et al. 1993; Cerchio et al. 1991; Cerchio 1993). This boundary allows for uniform protection and monitoring of the whales throughout their range in the main Hawaiian Islands and is more easily recognized by the public since there are no major exclusion areas.

Both human and humpback whale populations are increasing throughout the Hawaiian Islands. The fact that whale distribution is not static and is responsive to numerous social, environmental and human influences implies the need for an expanded area to accommodate changes. This boundary alternative allows for the protection of humpback whales and whale habitat now and in the future. The boundary also includes the areas of high human uses so that, should conflicts arise, the Sanctuary managers will have the latitude to directly address them uniformly throughout the humpback whale's range in Hawaii. However, this boundary does not recognize the military use areas in the vicinity of western Kauai/Niihau and Oahu. NOAA, in consultation with DOD and the State of Hawaii, has determined that the existing military use areas are essential to national defense and to the economy of the State of Hawaii. As such, NOAA determined that these areas should not be included in the Sanctuary boundary. Not including such areas is appropriate here, where the only Sanctuary resource is the humpback whale and its habitat, and where DOD remains subject to applicable humpback whale protection laws and regulations. This boundary alternative also includes the waters around two remote islands Niihau and Kaula Rock. Expanding research, long-term monitoring, enforcement, and outreach programs to these

outlying areas may over-extend the existing resources and make overall management throughout the main Hawaiian Islands less effective.

As with the status quo and preferred boundary alternatives, the environmental impacts of this boundary alternative would be positive. The Sanctuary management would have the ability to protect humpback whales and their habitat uniformly throughout the main Hawaiian Islands, through education, research, and regulation. The protection, education and management encompassed in the Sanctuary's programs would be extended to a larger portion of the humpback whale's wintering habitat than under the status quo alternative.

This alternative expands the scope of the Sanctuary to include the waters around all of the main Hawaiian Islands from the shoreline to 100-fathom isobath, including Niihau and Kaula Rock, excluding the waters around Kahoolawe and selected ports, harbors and boat basins. This boundary alternative does not exclude military use areas. NOAA has rejected this alternative because it fails to recognize the importance of DOD military use areas and of activities that are essential to the national security. Taken in conjunction with the preferred regulatory alternative (3) which does not add any new substantive regulatory prohibitions, permit requirements or approvals beyond those already required, implementation of this boundary alternative is not anticipated to result in adverse socioeconomic impacts to the economy or to marine users within this boundary. Any research, education, coordination or enforcement initiated as a result of the Sanctuary will ultimately lead to a better understood marine environment and will benefit both human and non-human users of the area. Any impacts resulting from establishing the Sanctuary, positive (e.g., education, research, monitoring, public participation, enforcement and coordination) or negative (e.g., civil penalties), would affect this larger main Hawaiian Islands area.

- e. Boundary Alternative (5): Expand Congressional boundary to include 1000-fathom isobath around the main Hawaiian Islands

This boundary alternative is the largest of all and encompasses most of the Hawaiian habitat range of humpback whales. It is fully described in Part III(B)(2)(f), and shown in Figure III-13. As described in Part II, recent scientific surveys that have included deep-water whale habitats revealed that up to 27% of the humpback whales, particularly males, were found in waters deeper than 100 fathoms (Mobley et al. 1993). This boundary option expands the scope of habitat protection to include deeper water areas used by humpbacks. The previous alternatives are primarily designed to protect calving and nursing areas, while alternative (5) includes additional deepwater habitat areas important to humpback whales such as singing, resting, and breeding. This alternative also responds to public comments received during the scoping meetings, other public meetings, and during the DEIS/MP public comment period calling for the most expansive statewide boundary to protect humpback whales and their Hawaiian habitat. The boundary lines were drawn based on humpback whale distribution data with the goal of providing a continuous management regime that encompasses the greatest amount of humpback whale habitat in Hawaii.

This boundary alternative more than triples the size of the 100-fathom isobath (Statewide) boundary, and allows for the most comprehensive protection and management of humpback whales and their habitat, through research, long-term monitoring, education/interpretative outreach, agency coordination, and enforcement activities. Environmental impacts of this boundary alternative would be positive, because the Sanctuary's resource protection programs would be applied to a continuous statewide area. Nearly all of the whale's habitat would be managed and protected under the Sanctuary regime. Other marine resources would also benefit indirectly from this protection. However, costs and other resource requirements associated with managing this large area may not allow the Sanctuary to achieve or fully implement all of its goals and objectives.

This alternative expands the scope to include the waters around all of the main Hawaiian Islands out to 1000 fathoms, including Niihau and Kaula Rock, and excludes the waters around Kahoolawe, and selected ports, harbors and boat basins. It contains no provisions to exclude military use areas; NOAA has determined that this alternative fails to recognize the importance of DOD military use areas and activities essential to the national security. Taken in conjunction with the preferred regulatory alternative (3) which does not add any new substantive regulatory prohibitions, permit requirements or approvals beyond those already required, implementation of this boundary alternative is not anticipated to result in adverse socioeconomic impacts to the economy or to marine users within this boundary. Any research, education, coordination or enforcement initiated as a result of the Sanctuary will ultimately lead to a better understood marine environment and will benefit both human and non-human users of the area. Any impacts resulting from establishing the Sanctuary, positive (e.g., education, research, monitoring, public participation, enforcement and coordination) or negative (e.g., civil penalties), would affect nearly everyone in the State.

## C. REGULATORY ALTERNATIVES

### 1. Introduction

This section analyzes the environmental and socioeconomic consequences of the five activities included within the scope of the proposed Sanctuary regulations. It also mentions fishing activities, which are not proposed to be regulated in the preferred alternative but are discussed to clarify misperceptions and concerns raised throughout the public process. Each activity is analyzed in the context of both the Sanctuary preferred regulatory alternative and the status quo alternative. There are also two regulations proposed in the preferred Sanctuary alternative which are intended to facilitate enforcement of the other Sanctuary regulations: these prohibit the possession of Sanctuary resources or interference with enforcement.

Overall the proposed regulations are intended: (1) to improve resource protection by instituting supplementary regulatory, surveillance and enforcement measures and authority; and (2) to minimize negative impacts to human uses, particularly those deemed compatible with the purposes of the Sanctuary.

Under section 304(c) of the NMSA, NOAA cannot terminate valid leases, permits, licenses or rights of subsistence use or access existing as of the date of Sanctuary designation, although NOAA can regulate the exercise of such authorizations and rights consistent with the purposes for which the Sanctuary was designated.

### 2. Fishing Activities:

#### Status Quo -- Preferred: No Additional Regulation

Most fishing gear types used in Hawaii's commercial and recreational fisheries, including longline, handline, trolling, and pole and line, do not pose any immediate threats to humpback whales. Large gillnets and drift nets that have led to marine mammal incidental mortality or injury in other areas, including Alaska, the Pacific West Coast, and the Northeast United States, are not used in Hawaiian waters. Consultations with NMFS, the DLNR's Division of Aquatic Resources, and the Western Pacific Regional Fishery Management Council<sup>1</sup> staff resulted in NOAA to determine that no regulation of fishing operations are presently needed to protect

<sup>1</sup> DLNR-DAR is the lead State agency responsible for maintaining the aquatic resources within State of Hawaii territorial seas which lie within the Sanctuary. WESPAC is the lead Federal entity that manages fishery resources in Federal waters which lie within the Sanctuary, such as the Penguin Bank area and Pailolo Channel.

humpback whales and their habitat. The Sanctuary managers will work closely with existing State and Federal fishery management agencies to ensure that impacts on humpback whales and their habitat are considered. Sanctuary staff will also continue to work with the commercial and recreational fishing communities to address their concerns.

The preferred regulatory alternative as depicted in the Sanctuary's Management Plan would place no additional restrictions on fishing activities and thus have no negative impacts on the fishing industry. Recreational and commercial fishing will continue to occur within the Sanctuary, subject to regulatory mechanisms currently in place under existing State and Federal authorities, including the 100-yard humpback whale approach regulations, which apply to all users of the marine environment.

### **3. Impacts of Proposed Regulations**

#### **a. Overflights**

##### **i. Status Quo: No Additional Regulation**

###### **1) Impacts on Resources**

Before the institution of regulations in 1987 prohibiting the operation of motorized aircraft within 1,000 feet of any humpback whales, helicopters and airplanes could come in close to individual whales in order to give passengers a clear view of them. Even underwater, whales are visible from aircraft in the clear waters surrounding the Hawaiian islands.

Low-flying motorized aircraft were identified as a source of possible harassment to humpback whales in Hawaii (Herman et al. 1980; Tinney 1988; Nitta and Naughton, 1989; Townsend 1991). The close presence or noise of the aircraft may frighten them and elicit a change in their behavior. Shallenberger (1978) and Herman et al. (1980) found however that humpback whales do not react consistently to aircraft. Aircraft flying as high as 1,000 feet can elicit responses from whales, while aircraft flying at half that height sometimes do not. Factors that may affect humpback whale behavioral responses to aircraft include: aircraft type; engine loudness and pitch; aircraft speed; wind speed, wave height, water depth, distance from shore, and the age, gender, number and activities of the whales. Effects may be greater on calves, who spend more time at the surface than adults.

Low-flying motorized overflights that may effect humpback whales are currently regulated by the NMFS humpback whale approach regulations. Aircraft operations in Hawaii consist of scheduled commercial operations, air taxi and tour services, general aviation (private flying) and military aircraft. The regulations prohibiting the operation of any motorized aircraft within 1,000 feet of any humpback whale applies throughout Hawaii's EEZ and does not target geographical areas of humpback whale habitat or distribution. The National Park Service is also considering promulgating more restrictive overflight restrictions for tour aircraft and helicopters above Volcanoes and Haleakala National Parks.

###### **2) Impacts on Users**

The charter helicopter and airplane industry is rapidly growing throughout the main Hawaiian Islands. Tourists are flown to scenic areas -- volcanoes, valleys, mountains, waterfalls and coastal areas -- to experience the beauty and splendor of Hawaii. The 1,000 feet overflight regulation was designed to create a "safety bubble" around humpback whales so they would not be disturbed by low-flying motorized aircraft, especially during their critical breeding stage. NOAA has concluded based on the growth in the local aviation industry since 1987, when the approach regulations were implemented, and the lack of documented complaints from pilots or of problems

with the enforcement, that the regulations have not adversely impacted the tour aircraft industry in Hawaii.

- ii. **Sanctuary Alternative -- Preferred:** Prohibit the operation of any motorized aircraft within 1,000 feet of any humpback whale unless authorized by the ESA or MMPA

- 1) **Impacts on Resources**

The distinction between this alternative and the Status Quo alternative is the additional authority for the Sanctuary to enforce and penalize any violations of the NMFS overflight regulation, in that violations of the overflight regulations are subject to NMSA enforcement mechanisms. These include a higher potential maximum civil penalty for offenders than those under a MMPA or ESA violation. NOAA-SRD will consult with the NMFS-Office of Enforcement (OE) and the State of Hawaii on any violations of Sanctuary overflight regulations. The existence of a higher maximum civil penalty should provide an additional deterrent to illegal overflight activities, thereby increasing protection for humpback whales. The Sanctuary overflight regulation also ensures that SRD play a role in any future changes in the overflight regulations that may impact humpback whales. In addition, the Sanctuary will continue to offer the context for coordination of various activities that might affect humpback whales and their habitat, including reviewing and commenting on proposed activities that may impact the whales and coordinating with existing agencies to address potential conflicts. The Sanctuary's education and research programs can also help benefit whales and whale habitat.

- 2) **Impacts on Users**

Private, commercial, charter and military aircraft regularly fly within the boundaries of the Sanctuary. However, all of these aircraft are presently subject to the NMFS 1,000-foot "safety bubble" over humpback whales. The Sanctuary would not add any new prohibitions or permit requirements so there would be no negative economic impacts to aircraft operators. Passengers would still be able to enjoy general scenic and whale observation opportunities, albeit from altitudes of 1,000 feet or greater if flying above humpback whales. The regulation recognizes that many airports in Hawaii are located near the water and contains a provision that exempts aircraft from the regulation when in any flight corridor for takeoff from or landing on an airport or runway. However, this exemption applies only to Sanctuary regulations (and potential for Sanctuary civil penalties) and does not exempt such activities from the NMFS 1,000 foot overflight regulation.

There may be an overall positive socioeconomic effect on the aircraft and tour industry. Given a better understanding of humpback whales and the regulations protecting them, and given the educational focus of enforcement officers, the helicopter and airplane tour experience would be improved. Better coordination, enforcement, education, and participation in the Sanctuary management process may increase industry compliance with regulations. As such, the industry may actually experience an overall reduction of any impacts of these regulations and better overall dialogue with resource managers. Ultimately this will provide additional protection for humpback whales.

The Department of Defense (DOD) has consulted with SRD on military activities that involve flights below 1,000 feet. The DOD, through the U.S. Navy, also has consulted with NMFS regarding its activities in Hawaiian waters. No adverse affects to listed species were identified, provided that certain mitigative measures were instituted by the various commands active in areas where humpback whales occurred. DOD has standard operating procedures and training protocols in place to assure that pilots avoid humpback whales. DOD remains subject to all applicable requirements of the MMPA and ESA.

Pilots and researchers that need to fly within 1,000 feet of humpback whales for research purposes are required to obtain a NMFS research permit. The Sanctuary will have the opportunity to review and comment on research permit applications submitted to NMFS, with the purpose of ensuring that Sanctuary resources are adequately protected. It is possible that SRD involvement in the review process could result in changes that would involve minor costs in time to applicants, but no significant socioeconomic impacts are anticipated.

**b. Approaching Humpback Whales**

**i. Status Quo: No Additional Regulation**

**1) Impacts on Resources**

There are many different types of vessels currently operating in and near the Sanctuary, including oil tankers, military ships, container ships, tug and barge, fishing boats, cruise ships, tour boats, whalewatching vessels, dive boats, zodiacs, sail boats, kayaks, thrillcraft, and a variety of recreational craft. The effects of vessel traffic on whale behavior have been studied using shorestation observation of whales at varying distances from vessels (Bauer 1986; Baker et al. 1982; Baker 1983, Green 1990), and aerial surveys of boat-whale interactions. Thus far, most research has focused on identifying short-term responses to vessels. Long-term changes to humpback whale distribution or behavior has not been investigated in Hawaii.

Contact between vessels and whales may occur when vessels approach whales or when whales approach vessels of their own accord. Humpback whales will often respond to approaching vessels by avoiding contact. Several scientists have investigated the effects of approaching vessels on humpback whales and noted short-term "horizontal avoidance behavior" consisting of faster swimming and longer dives, followed by "vertical avoidance" behavior, consisting of longer dive times (Baker and Herman 1989; Green 1990; Forestell et al. 1990). There is no clear indication that any one type of vessel has a greater effect on whales than any other, except that small, high-speed thrillcraft or other highly maneuverable craft apparently cause a greater-than-average avoidance response (Green 1990; Forestell et al. 1990). Long-term implications of these short-term behavior modifications are unknown. More research is needed to investigate the long-term effects of human-whale interactions. Increasing humpback whale and human populations will likely mean more interactions in the future.

All approaches to humpback whales are subject to the NMFS approach regulations throughout Hawaii's Exclusive Economic Zone (EEZ). These regulations make it unlawful: (a) to approach a humpback whale within 100 yards; (b) to cause a vessel or other object to approach a humpback whale within 100 yards; or (c) to operate any motorized aircraft within 1000 feet of a humpback whale. The regulations apply to all commercial, recreational and military vessels, and to human swimmers or humans with objects such as windsurfers. The purpose of these regulations is to avoid direct collision with or harassment of whales. The State of Hawaii has incorporated the NMFS approach regulations into State code and can enforce these regulations under State law (HRS Title 13, Subtitle 11, §244-40). The State imposes additional restrictions on commercial and recreational thrillcraft, water sledding, parasailing vessels and high speed motorcraft during the whale season (December 15 to May 15) in its "Humpback Whale Protected Waters" located off West and South Maui (HAR, Title 13, Chapter 256-112). In addition, to reduce the occurrence of a vessel collision or grounding, the U.S. Coast Guard (USCG) established a voluntary vessel traffic lane which routes larger vessels, such as oil tankers and container ships, to the north side of Oahu and into the commercial ports near Honolulu or Barber's Point.



In the short term, these approach regulations help minimize incidences of direct humpback whale harassment and presumably help the whales to carry out their normal activities in Hawaiian waters with reduced levels of disturbance from humans. However, no studies have investigated the long-term effectiveness of these regulations in increasing the humpback whale reproductive rates or rates of survival.

## 2) Impacts on Users

The NMFS humpback whale approach regulations have been in existence since 1987. Enforcement records indicate there has been no major impacts on vessel traffic or operations (see Table IV-3). These 100-yard approach regulations do not prohibit or unnecessarily restrict the operation of vessels in the Hawaiian Islands. The regulation specifically governs all individuals or vessels approaching whales within 100 yards throughout Hawaii's EEZ. Although citations can be issued for violations of these regulations, no one user group has been entirely restricted or disadvantaged by the presence of the regulation (see Table IV-3). A discussion of enforcement activities is given in Part II(D)(3), Part III(B)(3)(iii), and Part V(D)(4).

NMFS has developed a Cooperative Agreement with USCG and the Hawaii DLNR-Department of Conservation and Recreation Enforcement (DOCARE) regarding enforcement activities related to the humpback whale approach regulations. DOCARE officers have been deputized to enforce the Federal whale approach regulations. The State of Hawaii may also pursue violations of State humpback whale approach regulations and thrillcraft restrictions in specific areas from December 15 to May 15 under State regulations.

- ii. **Sanctuary Alternative -- Preferred:** Prohibit approaching or causing another vessel or other object to approach within 100 yards of a humpback whale unless authorized by the ESA and MMPA.

## 1) Impacts on Resources

Under this alternative, the ESA/MMPA humpback whale approach regulations would be incorporated as Sanctuary regulations. The distinction between this alternative and the status quo alternative discussed previously is the additional authority for the Sanctuary to enforce ESA and MMPA "approach" regulations under the NMSA and to be involved in the NMFS permit review process. Thus, the Sanctuary will have the authority under the NMSA to apply enforcement mechanisms and pursue civil violations of these approach regulations, and will be more directly involved in humpback whale protection and management efforts. The net effect of the regulation will benefit humpback whales and their wintering habitat (as encompassed by the Sanctuary) due to increased deterrence and compliance with regulations in place to protect the whales from potentially harmful approaches. Also, since this regulation focuses attention on a certain types of activity (approaching whale by boat), Sanctuary education and research programs can be focused on these activities that have the most potential for negatively impacting the whales. The overall result is greater knowledge of and protection for humpback whales and their habitat. A public that is better informed because of Sanctuary resource protections regulations will be more aware of the need to respect Sanctuary resources and will be more likely to comply with these existing approach regulations. The net environmental effect of this regulation on the Sanctuary area will be positive.

## 2) Impacts on Users

As an insular state, Hawaii is dependent upon commercial shipping (and inter-island barging) to import and export goods and petroleum products. The marine recreation industry also contributes significantly to the Hawaii economy: it accounted for \$560 million in 1992 (MacDonald and Deese, 1994). SRD recognizes that the boating and shipping industry is crucial



to the economy of Hawaii and is not proposing to institute additional regulatory prohibitions on vessel traffic.

The socioeconomic impacts of this regulatory option are expected to be small and positive. No additional and substantive vessel traffic restrictions would be added to the NMFS 100-yard approach regulations. The Sanctuary regulation is merely supplementing existing prohibitions, and not adding additional permits or authorization requirements. The distinction between this alternative and the status quo alternative discussed previously is the additional authority for the Sanctuary to enforce ESA/MMPA approach regulations under the NMSA. Under the NMSA, the Sanctuary can impose higher maximum civil penalties for violations of Sanctuary regulations than is possible under the MMPA or ESA. The maximum is \$100,000 under the NMSA, and \$25,000 under the MMPA and ESA. The maximum civil penalty would not normally be applied except possibly for repeat offenders or particularly egregious offenders. Impacted users would be limited to only those persons subject to the regulations (as opposed to all users of the Sanctuary), and of those, only those persons in violation of Sanctuary regulations. The actual impact on those persons in violation of Sanctuary regulations will be relatively small because enforcement mechanisms are not limited to civil penalties. Rather, oral and written warnings are given routinely in lieu of civil penalties (See Table IV-3). Further, with interpretive enforcement, users subject to Sanctuary regulations will be educated as to what the regulations are and why they are in place, thus increasing future voluntary compliance and decreasing those potentially subject to civil penalties. Consequently, there will be few impacts to Sanctuary users.

Education and interpretive enforcement focusing on the Sanctuary approach regulation will result in greater public compliance of the regulation which will benefit humpback whales, thus increasing the experience (enjoyment of the experience as well as recreational and aesthetic experience) of Sanctuary resources for all Sanctuary users. Further, in those instances where a person who violated a Sanctuary regulation was assessed a civil penalty under the NMSA, those civil penalty monies will be returned to the Sanctuary for management and improvement (e.g., education and outreach), as opposed to being deposited in the general U.S. Treasury. Finally, NMSA enforcement will be coordinated with existing State and Federal authorities to minimize duplication of effort, thus minimizing potential cumulative effects on those users in violation of Sanctuary regulations.

### c. Taking Humpback Whales

#### i. Status Quo: No Additional Regulation

##### 1) Impacts on Resources

Humpback whales are currently protected by the MMPA and the ESA, which are both implemented by NMFS. The ESA and MMPA prohibit the "take" of all marine mammals and endangered species, a term broadly defined under the two laws. The MMPA defines "take" as "to harass, hunt, capture, or kill, or attempt to harass, hunt, capture or kill any marine mammal,"<sup>2</sup> and the 1994 amendments to the MMPA define harassment as a any act of pursuit, torment, or annoyance which (at Level A Harassment) "has the potential to injure a marine mammal or marine mammal stock in the wild" or (at Level B Harassment) "has the potential to injure a marine mammal stock in the wild by causing disruption of behavioral patterns including, but not limited to, migration, breathing, nursing, breeding, feeding, or sheltering."

The approach regulations promulgated by NMFS are thus in fact a protective measure to prevent harassment of humpback whales. NMFS also has the authority under the ESA to

<sup>2</sup> The ESA (1988) similarly defines "take" as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, or collect, or attempt to engage in any such conduct."

designate and protect oceanic habitats that are found to be critical for species listed as endangered, such as the humpback whale. The MMPA, which was reauthorized in 1994, requires NMFS to establish Regional Scientific Review Groups to examine the impacts of human and environmental factors on marine mammals, and to develop and implement conservation plans to alleviate such impacts. The NMFS Regional Scientific Review Groups have not yet been established and their scope will include topics other than humpback whales.

Potential threats to humpback whales range from direct injuries or harassment of a single animal or population to indirect or cumulative degradation of their habitats. Neither the MMPA nor the ESA fully prevent such degradation of habitats. Section 7(a) of the ESA requires consultations on Federal actions which may affect endangered species or their critical habitats. However, this section applies only to activities authorized, funded, permitted, or carried out by the Federal agencies, not to direct private or state actions.

The anticipated net effects of the status quo alternative on Sanctuary resources are expected to be positive. The MMPA and ESA "take" regulations help minimize incidences of direct humpback whale harassment and harm, and presumably help the whales to carry out their normal activities (resting, breeding, calving and nursing) in Hawaiian waters with reduced levels of disturbance from humans. The "take" regulation is a standard regulation applied to all marine mammals under the MMPA and ESA, and prohibits persons from harassing, hunting, capturing, killing or attempting so conduct such an activity. This regulation, as implemented through the MMPA and ESA, was responsible for ending the commercial whaling in the U.S. EEZ and allowing whale populations, including humpbacks, to naturally recover.

## 2) Impacts on Users

The MMPA/ESA marine mammal "take" regulations have been in existence since 1972. Enforcement records indicate there has been no major impacts on vessel traffic or operations (see Table IV-3). Since 1987, most enforcement actions resulted from persons in violation of the 100-yard approach regulation and not the "take" regulation. The "take" regulation specifically governs all individuals or vessels approaching whales throughout the U.S. EEZ. Although citations can be issued for violations of these regulations, no one user group has been entirely restricted or disadvantaged by the presence of the regulation. A discussion of enforcement activities is given in Part II(D)(3), Part III(B)(3)(iii), and Part V(D)(4).

NMFS has developed a Cooperative Agreement with USCG and the Hawaii DLNR-Department of Conservation and Recreation Enforcement (DOCARE) regarding enforcement activities related to the humpback whale approach regulations. DOCARE officers have been deputized to enforce the Federal ESA/MMPA "take" regulations. The State of Hawaii may also independently pursue violations of State humpback whale "take" regulations.

- ii. **Sanctuary Alternative -- Preferred:** Prohibit the "taking" or possession of humpback whales (or parts) unless authorized under the ESA and MMPA.

## 1) Impacts on Resources

Under this alternative, the ESA/MMPA humpback whale "take" regulations would be incorporated as Sanctuary regulations. The distinction between this alternative and the status quo alternative discussed previously is the additional authority for the Sanctuary to enforce ESA and MMPA "take" regulations under the NMSA and to be involved in the NMFS permit review process. Thus, the Sanctuary will have the authority under the NMSA to apply enforcement mechanisms and pursue civil violations of these approach regulations, and will be more directly involved in humpback whale protection and management efforts. The net effect of the regulation

will benefit humpback whales and their wintering habitat (as encompassed by the Sanctuary) due to increased deterrence and compliance with regulations in place to protect the whales from potentially harmful "takes". Also, since this regulation focuses on a certain types of activity (harass, kill, hunt, capture or attempt to do so), Sanctuary education and research programs can be focused on these activities that have the most potential for negatively impacting the whales. The overall result is greater knowledge of and protection for humpback whales and their habitat. A public that is better informed because of Sanctuary resource protections regulations will be more aware of the need to respect Sanctuary resources and will be more likely to comply with these existing "take" regulations. The net environmental effect of this regulation on the Sanctuary area will be positive.

## 2) Impacts on Users

The socioeconomic impacts of this regulatory option are expected to be small and positive. No additional and substantive "take" prohibitions would be added by the Sanctuary to the existing ESA/MMPA "take" regulations. The Sanctuary regulation is merely supplementing existing prohibitions and not adding additional permits or authorization requirements. The only distinction between this alternative and the status quo alternative discussed previously is the additional authority for the Sanctuary to enforce ESA/MMPA "take" regulations under the NMSA. Under the NMSA, the Sanctuary can impose higher maximum civil penalties for violations of Sanctuary regulations than is possible under the MMPA or ESA. The maximum is \$100,000 under the NMSA, and \$25,000 under the MMPA and ESA. The maximum civil penalty would not normally be applied except possibly for repeat offenders or particularly egregious offenders. Impacted users would be limited to only those persons subject to the regulations (as opposed to all users of the Sanctuary), and of those, only those persons in violation of Sanctuary regulations. The actual impact on those persons in violation of Sanctuary regulations will be relatively small because enforcement mechanisms are not limited to civil penalties. Rather, oral and written warnings are given routinely in lieu of civil penalties (See Table IV-3). Further, with interpretive enforcement, users subject to Sanctuary regulations will be educated as to what the regulations are and why they are in place, thus increasing future voluntary compliance and decreasing those potentially subject to civil penalties. Consequently, there will be few impacts to Sanctuary users.

Education and interpretive enforcement focusing on the Sanctuary "take" regulation will result in greater public compliance of the regulation which will benefit humpback whales, thus increasing the experience (enjoyment of the experience as well as recreational and aesthetic experience) of Sanctuary resources for all Sanctuary users. Further, in those instances where a person who violated a Sanctuary regulation was assessed a civil penalty under the NMSA, those civil penalty monies will be returned to the Sanctuary for management and improvement (e.g., education and outreach), as opposed to being deposited in the general U.S. Treasury. Finally, NMSA enforcement will be coordinated with existing State and Federal authorities to minimize duplication of effort, thus minimizing potential cumulative effects on those users in violation of Sanctuary regulations.

### d. Discharges or Deposits

#### i. Status Quo: No Additional Regulation

##### 1) Impacts on Resources

Under the status quo alternative, discharges and deposits will continue to pressure the resources of the coastal zone. As the population of Hawaii continues to increase, human uses of the ocean and adjacent watersheds will result in an increase of discharges and deposits into Hawaii's nearshore waters (OSP 1996). The consequence to humpback whales of continuing with

the status quo will be further degradation of the humpback whale's habitat, particularly in coastal areas which are of critical importance to newly born calves.

The cumulative effects of point source pollution, including sewage spills, and non-point source pollution from surface runoff and airborne contaminants can result in degraded water quality, algae blooms, and other problems (OSP 1996). These problems have begun in particular to affect nearshore areas such as West Maui and Mamala Bay. The impact of degraded water quality on humpback whales is not known precisely, but some of the pollutants can be presumed to be harmful (Dailey 1985; Taruski et al. 1975). Without a coordinated approach and clear goals for protecting the coastal resources, human activities may continue to degrade the humpback whale's habitat. Although numerous laws and regulations apply to the disposal of wastes and other types of discharges into the marine environment, most decisions are made on a case-by-case basis and do not focus specifically on investigating the effects of pollutants on humpback whales or their habitat. A coordinated approach and clear goals for protecting whales habitat from further degradation is currently lacking.

a) Water quality standards

The Hawaii Department of Health (DOH) has developed water quality standards based on Federal EPA water quality standards established under the Clean Water Act (CWA). DOH classifies marine waters as Class AA or Class A waters, and marine bottom ecosystems are divided into Class I and Class II. There are basic water quality criteria applicable to all waters that address floating debris, thermal pollution, turbidity and nearly 100 toxic substances (HAR, Chapter 11-54). These criteria are among the most stringent in the Nation (DOH 1990, Water Quality Management Plan for the City and County of Honolulu). DOH is responsible for monitoring and enforcing these standards.

b) Discharges from Point Sources

The Clean Water Act furnishes some protection to marine resources from the harmful effects of effluent discharges. Under the status quo alternative, the Hawaii Department of Health (DOH) would continue to regulate and monitor point source discharges, including stormwater discharges, through the National Pollution Discharge Elimination System (NPDES) permitting process, water quality certifications, and other general permits. DOH's primary concern is about human health. DOH does not have the staff, resources, or mandate to monitor or consider discharges from the perspective of humpback whale health.

Two outfall plants, the Sand Island and Honouliuli Wastewater Treatment Plants, now discharge partially treated waste directly into ocean waters off Oahu outside the preferred Sanctuary boundary alternative. The Environmental Protection Agency (EPA) and DOH have issued a Clean Water Act 301(h) waiver of secondary treatment requirements for these two wastewater treatment plants until additional studies determine the relative impacts of these discharges on nearshore resources (Mamala Bay Study Commission, 1993). Ocean outfalls and injection wells scattered throughout the state also discharge municipal wastes, industrial wastes and agricultural wastes which have received secondary treatment.

Ocean outfalls, particularly those discharging partially treated matter in nearshore waters, are monitored but must be assessed to determine their impacts to humpback whales and whale habitat. While research specifically investigating water quality effects on humpback whales is lacking, data from more general studies on water quality could be used to address management concerns or structure future research projects. While existing Federal and State regulations are intended to achieve a permanent reduction of harmful waste loads in the interests of marine environmental protection, limitations on resources and other obstacles have hindered implementation and regional waste treatment facilities are still not equipped to render ocean

discharges environmentally safe. For example, a number of discrete areas around Hawaii have degraded water quality to varying degrees, including Kaneohe Bay, Mamala Bay, and West Maui. Local land point-source pollution, including municipal, industrial, and agriculture discharges; and non-point source discharges, from urban runoff and agricultural practices (discussed below) are believed to be the cause of these problems. More research is needed on the relative culpability of these sources; on the potential health threats to whales, and the marine environment generally, and on the best solutions in terms of management.

The continued decline in water quality, reduction in fish catches, and beach closures from occasional sewage spills are all signs of continuing pressure on the marine resources of Hawaii. It can be assumed that the demands of an increasing human population will likely result in further degradation of water quality in the absence of a comprehensive and coordinated management effort. There is no single agency that reviews the discharges from the perspective of their effect on humpback whales or on the health of the habitat which whales depend on.

### c) Pollution from Non-Point Sources

Non-point source pollution is mainly a consequence of land use practices of farmers, resort developers, construction companies and everyone else who affects surface runoff in the watershed. Surface runoff may contain various amounts of pollutants including heavy metals, toxins, pesticides, herbicides, fertilizers, infectious pathogens, and inorganic sediments. Evidence is growing that coral reefs and nearshore habitats have been harmed by non-point sources of pollution and sedimentation. It is also possible that pollutants enter the ocean surface from discharges into the air but the magnitude and effects of these airborne pollutants on whales have not been studied. Marine mammals are known to bioaccumulate PCB's and other pollutants in their tissues (Taruski et al., 1975). It is not known how much of this pollution is absorbed directly through their skin, eyes and other membranes in comparison to how much is taken in through swallowing water or eating contaminated food. However, since humpback whales are not known to regularly feed in Hawaii, food ingestion is the least likely of these sources.

Section 6217 of the Coastal Zone Act Reauthorization Amendments of 1990 (CZARA), which amended the CZMA requires states with CZM programs to develop and implement coastal non-point pollution control programs to be approved by NOAA and EPA. State programs are to be developed jointly by the coastal zone management agency and the water quality agency, and must be based on guidelines developed by the EPA and NOAA. Hawaii responded to these requirements by coordinating the existing efforts of the Hawaii Coastal Zone Management Program (CZMP) and DOH. To assist with program development of the Coastal Non-Point Pollution Control Program Management Plan, the CZM Program convened an informal working group and created five focus groups (agriculture, forestry, urban, marinas and recreational boating, hydromodifications and wetland/riparian areas) which met on a regular basis. The Hawaii CZMP submitted the draft non-point pollution management plan to NOAA and EPA in July 1996. The plan address over 56 management measures which will be implemented through both regulatory and non-regulatory mechanisms. The management measures are based on technical and economic achievability, rather than on cause-and-effect linkages between particular land use activities and particular water quality problems. The intent of the Hawaii coastal non-point pollution control program is to build upon, rather than duplicate, existing programs. The array of existing programs will be loosely bound together in a "network" under the rubric of the Coastal Non-Point Pollution Control Program. The program should be fully developed by the end of 1997.

The Hawaii CZMP and DOH, with significant assistance from other State, Federal, and county agencies, non-governmental organizations, and individuals, have jointly developed Hawaii's Coastal Non-Point Pollution Control Program management plan. The Coastal Non-Point Pollution Control Program will continue to rely on the resources, expertise, program, and authorities of other agencies and organizations during its continuing development and

implementation. In addition, opportunities for public participation will continue to be part of Hawaii's coastal non-point pollution control program.

d) Hazardous Waste, Oil, and Trash Disposal

Pollutants and trash from vessels or upland sources are sometimes transported far distances by ocean currents before reaching the Hawaiian Islands. Marine mammals can ingest litter and have been found entangled in plastic packing material or discarded fishing gear worldwide, although the incidence of marine mammal entanglement is generally higher in areas where commercial fishing activities and marine mammal feeding occur simultaneously, such as Alaska. NMFS has indicated that commercial fishing activities in Hawaii do not pose significant threats to humpback whales (Nitta and Naughton, 1989). The incidence of mortality or disturbance associated with marine debris remains unclear.

The Marine Plastic Pollution Research and Control Act (MPPRCA) of 1987 amends the Act to Prevent Pollution from Ships. The purpose of the amendment is to implement Annex V of the International Convention for the Prevention of Pollution from Ships (MARPOL 73/78), which prohibits ships from disposing plastics, such as fishing lines and bags. This protects marine animals and seabirds from ingesting these wastes while foraging, or from becoming entangled in debris. The MPPRCA regulations also prohibit, for example, the disposal by ship of paper, rags, glass, metal bottles, crockery and similar refuse less than 12 nautical miles from the nearest land; the disposal of dunnage lining and packing materials that float less than 25 nautical miles from the nearest land; and the disposal of victual waste less than 12 nautical miles from land (if ground, 3 nautical miles).

Discharges, such as the cooling waters from boat engines and fish wastes, which are used by and discarded from fishing vessels, are unlikely to harm the resources of the Sanctuary. Discharges resulting from military activities in the area, such as smoke markers, sonobuoys and ordinance, are slight and do not appear to pose a threat to humpback whales. As part of their Standard Operating Procedures, the military surveys training sites by air, boat, and passive sonar, when available, for humpback whales, other humans, and wildlife before training activities commence. In the event that humpback whales are present, the activity will be delayed until the range is clear. DOD vessels are also required to be equipped with oil-water separators. The water effluent from these devices must meet standards of 20 parts per million (ppm) oil within 12 nautical miles from land or 100 ppm beyond 12 nmi from land. The oil portion is retained on board for shore disposal.

During 1991, the Hazard Evaluation and Emergency Response (HEER) Office of the Hawaii Dept. of Health received a total of 453 oil and hazardous substance emergency spill notifications (Hawaii State Emergency Response Commission, 1992). Over 83% of these notifications originated in Oahu. Petroleum was the most commonly reported material released, accounting for about 70% of spills, followed by spills of unknown origin at about 6%. Miscellaneous other substances such as paint, soap, mercury and sulfuric acid accounted for another 6%. Some of the possible effects of oil spills on humpback whales include: damage to skin or eyes upon contact, fouling of baleen, and physiological problems from ingestion and inhalation. Although the effects of oil on humpback whales has not been fully investigated, scientists hypothesize that oil could cause short- and long-term harm. Humpback whale calves and pregnant females may be particularly susceptible to spills since they are more likely to be found in nearshore waters and spend more time at the surface.

e) Dredged materials

Dredging activities and their impacts on navigation and the environment are regulated by the U.S. Army Corps of Engineers (Corps) under Section 10 of the Rivers and Harbors Act of

1899 (dredging), by EPA and the Corps under Section 404 (discharge of dredge or fill materials within 3-nautical miles of the shoreline) of the Clean Water Act (CWA), and Section 103 (ocean disposal of dredge materials) of Title I of the Marine Protection, Research and Sanctuaries Act (MPRSA; 33 U.S.C. §1401 *et seq.*). Permit applicants are also required to comply with Coastal Zone Management Act Federal consistency requirements, and obtain CWA, Section 401, Water Quality Certifications prior to being issued a permit by the Corps. Applicants may also be required to obtain separate permits from State agencies for activities conducted within State waters. For example, a DLNR Conservation District Use Applications (CDUAs) permit is required for activities conducted in submerged lands of the State.

#### f) Ocean disposal sites

Ocean dumping, municipal outfalls, and dredged material disposal can smother benthic biota and introduce substances into the marine environment which may affect birds, fish and marine mammals. Title I of the MPRSA regulates the transport of materials for the purpose of dumping it into ocean waters. Section 102 of the MPRSA allows the EPA to designate disposal sites or time periods for dumping that will mitigate adverse impact on the environment to the greatest extent practicable. EPA must develop site management plans that include a baseline assessment of the resources, monitoring, management conditions and the type and amount of materials to be dumped. EPA must also consider the potential impacts of the ocean disposal sites on marine sanctuaries and other protected areas. Section 103 of the MPRSA establishes a permit system by which the Corps may issue permits for the transportation of dredged materials for the purpose of dumping it into ocean waters (in EPA approved sites). The Corps must determine that the dumping will not unreasonably degrade or endanger human health, welfare, or amenities, or the marine environment, ecological systems, or economic potentialities.

In 1980, the EPA, in cooperation with the U.S. Army Corps of Engineers, designated five dredge material ocean disposal sites in Hawaii. All five sites are located outside the proposed Sanctuary boundary in waters deeper than 100-fathoms. Some "clean" dredge disposal materials are used to replenish beach areas or are used to provide shoreline protection in areas experiencing coastal zone erosion. Because of the complexities of sediment, water, and biological interactions, it is difficult, though necessary for effective management, to analyze the natural disturbance regime at the potential disposal site and its relation with the associated benthic communities. The effects of ocean dumping on humpback whales or their habitat in Hawaii is unknown.

#### 2) Impacts on Users

Under the status quo, existing Federal and State authorities will continue to regulate and monitor discharges and deposits of materials in and outside the Sanctuary. However, most regulatory decisions pertaining to dischargers are made on a case-by case basis with the primary intent of facilitating human uses rather than protecting the environment. Use of nearshore Hawaiian waters for discharges has been adopted as an acceptable alternative without special consideration given to humpback whales or their habitat. Therefore, from the Sanctuary perspective, certain gaps remain in the existing regulatory structure in terms of its mission of protecting humpback whales.

Under the status quo, the Sanctuary manager would attempt to work with existing agencies to ensure that humpback whales and their habitat are given due consideration. No Sanctuary regulations or permit requirements would be added. Impacts to users would be insignificant. Sanctuary education and outreach programs may increase compliance with regulations and help facilitate public efforts to alleviate or eliminate unnecessary discharges into marine waters. Likewise a research program may be able to answer some of the unknowns concerning the effects of discharges on humpback whales.



- ii. Sanctuary Alternative -- Preferred: Prohibit discharges or deposits that take place without, or in violation of the terms or conditions of a required Federal or State, permit, license, lease or other authorization.

### 1) Impacts on Resources

Under this alternative, the Sanctuary would supplement the authority of existing agencies that regulate discharge and deposit activities. This regulation improves the protection of humpback whale habitat by supplementing enforcement of existing discharge and deposit requirements, thereby strengthening compliance with the terms and conditions of required leases, permits or licenses issued by Federal or State authorities under the Clean Water Act, River and Harbors Act, Marine Protection, Research, and Sanctuaries Act, and relevant State laws and codes. The proposed regulation complements the existing regulatory system and ensures that humpback whales and their habitat are given consideration in existing permit processes. The Sanctuary would work within the permit review processes of relevant State and Federal agencies to ensure that the humpback whale's habitat is maintained and not degraded.

The distinction between this alternative and the status quo alternative discussed previously is the additional authority for the Sanctuary to enforce violations of existing Federal and State discharge and alteration of the seabed regulations under the NMSA and to be involved in their permit review process. Thus, the Sanctuary will have the authority under the NMSA to apply enforcement mechanisms and pursue civil violations of these discharge and deposit regulations, and will be more directly involved in humpback whale protection and management efforts. The net effect of the regulation will benefit humpback whales and their wintering habitat (as encompassed by the Sanctuary) due to increased deterrence and compliance with regulations in place to protect the whales from potentially harmful discharge and deposit activities.

Since this regulation focuses on a certain types of activity (point and non-point discharges, marine construction, dredging), the Sanctuary education and research programs can be focused on these activities that have the most potential for negatively impacting the whales. The overall result is greater knowledge of and protection for humpback whales and their habitat. A public that is better informed because of Sanctuary resource protections regulations will be more aware of the need to respect Sanctuary resources and will be more likely to comply with these existing regulations designed to maintain water quality and the integrity of the seabed. Finally, any information gained through the Sanctuary's long-term research and monitoring programs will benefit the entire marine ecosystem and, in turn, all industries that depend on a healthy marine environment. The net environmental effect of this regulation on the Sanctuary area will be positive.

#### a) Water quality standards

DOH has established EPA-approved water quality standards for Hawaii in Chapter 11, HAR, based on Federal CWA standards. Marine waters are classified as either Class AA or Class A (see description of Class AA and A waters in Part II(D)(3)(b)(7)). There are basic State water quality rules that apply to both Class AA and Class A waters that control ocean dumping, thermal pollution, turbidity, and nearly 100 toxic substances (HAR, Chapter 11-54). DOH is responsible for monitoring and enforcing these regulations. The NMSP has no independent water quality standards for individual national marine sanctuaries. NOAA will work with DOH to ensure that water quality is maintained, at a minimum, to the State standards within the Sanctuary. The Sanctuary program will work with other Federal and State agencies to ensure that waters in the Sanctuary are not degraded below these standards or below current water quality levels.

Additional research is necessary to determine the need and type of water quality management strategies specific for the humpback whale and its habitat that should be developed.

As one of the research priorities, NOAA will focus on relating specific water quality parameters, concentrations, or loadings to the "health" of the humpback whale in Hawaiian waters.

**b) Discharges from Point Sources**

A National Pollution Discharge Elimination System (NPDES) discharge permit is required for discharges from wastewater treatment facilities, stormwater sewers from medium and large cities, electric generating facilities, industries and agriculture facilities. EPA has delegated this permit authority to the Hawaii DOH. NPDES permits require dischargers to monitor outfall areas and submit data to DOH on a periodic basis. DOH also performs pollutant source and ambient water quality monitoring at over 76 fixed monitoring stations statewide.

The Sanctuary will work closely with DOH to ensure that Sanctuary concerns are addressed in their existing NPDES permit program. The Sanctuary will not issue independent discharge permits or have independent approval authority. SRD is developing an MOU with DOH (and DLNR for alteration of the seabed activities) that will specify procedures for Sanctuary review of NPDES permits. A draft of this MOU can be found in Appendix E. The Sanctuary will be able to provide advice and recommendations to DOH on specific permits, but it will not have independent authority to deny any discharge activities issued by DOH. A separate MOU will be developed that will detail enforcement procedures between NOAA and the State.

**c) Pollution from Non-Point Sources**

SRD recognizes the great amount of effort undertaken by the Hawaii CZM program and DOH to develop the Coastal Non-Point Pollution Control Program, pursuant to Section 319 of the CWA and Section 6217 of the CZARA. This program includes both regulatory and non-regulatory management measures to control non-point source pollution originating from a variety of sources in the State. The Sanctuary will primarily act to assist these agencies implement measures identified in the non-point pollution control program and to identify other technical and financial assistance to implement these programs. The Sanctuary will look toward these agencies to provide guidance and to help identify areas where the Sanctuary can supplement their efforts to implement the water quality plan, especially as it pertains to long-term monitoring programs and efforts to improve the humpback whale's habitat.

Policies that pertain to water quality developed within the Sanctuary program will be closely reviewed and coordinated with the Coastal Zone Management Program and DOH. The Hawaii Sanctuary's regulatory structure will not increase restrictions nor result in reduced flexibility of the Hawaii CZM Program or DOH to implement this program. The Sanctuary has already co-sponsored a coastal water quality position with the West Maui Watershed Program and will provide additional support to the DOH this next year for monitoring projects

**d) Hazardous Waste, Oil, and Trash Disposal**

NMFS, Southwest Region (SWR) is the NOAA representative on the Oceanic Region IX Regional Response Team (RRT), and on the Area Committee established under the Oil Pollution Act of 1990. NMFS-SWR will continue to represent NOAA's interests, including those of the Sanctuary, on the RRT and the Area Committee. NMFS-SWR will coordinate with the Sanctuary Manager on issues that may effect the Sanctuary, and bring those concerns to the attention of the RRT and Area Committee. As appropriate, the Sanctuary Manager will be invited to participate on the RRT and Area Committee by the U.S. Coast Guard and EPA.

In the event of a spill, NMFS-SWR will coordinate with the RRT and Area Committee according to the provisions outlined in the Federal On-Scene Coordinator Area Contingency Plan. For incidents involving the release or potential release of oil or hazardous materials that injure,

destroy or cause the loss of Sanctuary or other NOAA trustee resources, the Damage Assessment and Restoration Program (DARP) will assume the lead responsibility within NOAA for conducting damage assessment, litigation and restoration activities. SRD may request a co-lead role. NMFS-SWR, Pacific Area Office will coordinate and work with other NOAA members of the Damage Assessment and Restoration Program (DARP), the Sanctuary, and other Federal agencies to ensure that oil spill and hazardous materials wastes disposal response efforts are coordinated.

SRD and NMFS are currently developing an MOU to address NOAA management issues in the Sanctuary, including coordination under the Fish and Wildlife Act and Oil Spill and Hazardous Waste Contingency Planning. The Sanctuary will also work with existing government agencies and the public to promote proper trash disposal and coastal clean-up efforts.

**e) Dredged materials**

Alteration of the seabed activities, including dredge and fill, and their impacts on navigation and the environment are regulated by the Corps under Section 10 of the RHA (dredging), by EPA and the Corps under Section 404 (discharge of dredge or fill materials) of the CWA, and Section 103 (ocean disposal of dredge materials) of Title I of the MPRSA. Permits are also required by several State agencies for activities in State waters. The Hawaii Department of Transportation issues permits for ocean dredging, filling, construction and dumping materials below the mean high water mark.. A DLNR Conservation District Use Applications (CDUAs) permit may also be required for activities conducted in submerged lands, which is reviewed by the State Land Board for potential impacts to state lands.

The Sanctuary will work within these existing State and Federal permit review processes to ensure Sanctuary concerns are addressed. SRD and NMFS are developing an MOU concerning Federal permits and consultations for activities that affect the Hawaii Sanctuary. NMFS will remain the lead, and work closely with the Sanctuary manager to address Sanctuary concerns through existing permit review mechanisms under NEPA and FWCA, and through interagency teams, such as the Pacific Regional Dredging Team administered by the Corps. This consolidated NMFS and SRD permit review will include all NEPA actions and other permit programs reviewed under the FWCA, such as the CWA Section 404 and RHA Section 10 permits that may affect Sanctuary resources. NMFS will remain the lead agency and coordinate between the Corps of Engineers and EPA.

In addition, SRD is developing an MOU with the State of Hawaii (DOH and DLNR) to address discharge and alteration of the seabed activities. This MOU will specify procedures for Sanctuary review of applications for State permits relating to discharge and alteration of the seabed activities in the Sanctuary. A draft of this MOU can be found in Appendix E. The Sanctuary will be able to provide advice and recommendations to DLNR on specific permits, but it will not have independent authority to deny any discharge activities issued by DLNR. A separate MOU will be developed that will detail enforcement procedures between NOAA and the State.

The Sanctuary will work within these existing permit review structures to ensure their concerns are address, but it will not have independent authority to restrict or deny discharge or alteration of the seabed activities under CWA Section 404, RHA Section 10, State of Hawaii CDUA permits, or other permits issued by other Federal or State agencies.

**f) Ocean disposal sites**

There are currently five EPA-approved ocean dredge disposal sites in Hawaii. None of these disposal sites are located in or adjacent to the proposed Sanctuary boundary. The Corps regulates the transport of dredged materials to these sites. The Hawaii Sanctuary regulations do not expressly prohibit new ocean disposal sites from being located within or adjacent to the

Sanctuary. However, Title I of the Marine Protection, Research, and Sanctuaries Act (Ocean Dumping Act) establishes general criteria for the selection of disposal sites, including a requirement that EPA consider the impacts of such disposal sites on marine resources and areas possessing significant resources, such as marine sanctuaries. Further, Title I requires EPA to prepare an Annual Report to Congress that assesses the extent to which the marine environment has been impacted by materials disposed at ocean disposal sites, including the movement of such materials into marine sanctuaries.

Prior to citing a new ocean disposal site in or near the Sanctuary, EPA and the Corps would be required to consult with SRD, pursuant to the section 304(d) consultation provision of the NMSA. SRD and NMFS have consolidated the NMSA 304(d) and ESA Section 7 consultation provisions. NMFS will remain the lead contact and work with SRD to ensure that the Sanctuary's concerns are addressed. Further, sections 306 and 312 of the NMSA make it unlawful for any person to destroy, cause the loss of, or injure any Sanctuary resource, and provides for liability should such occur, respectively. As regarding disposal sites located outside the boundary, the Sanctuary would be concerned if authorized disposals result in sediment plumes entering the Sanctuary that could or actually injure a Sanctuary resource. At this time, the relative impacts of degraded water quality and sediments on humpback whales is relatively unknown.

## 2) Impacts on Users

Under this regulatory preferred alternative the Sanctuary would supplement existing authorities that regulate discharge and deposit activities. This regulation would not place additional substantive prohibitions, more stringent standards, or independent permits on marine users. Instead, the regulation would require that the Sanctuary work closely within the existing administrative and regulatory framework established by NMFS, EPA, DOH, and the Corps. The Sanctuary would not add a duplicative permitting or approval process and would not prohibit or restrict discharge or deposit activities which do not require Federal or State authorization. Most ports, harbors, small boat basins, and areas of primary sewage discharge in Hawaii are not included in the proposed Sanctuary boundary and would continue under status quo management, although Sanctuary managers could comment on individual projects outside the boundaries which might affect the Sanctuary.

The only distinction between this alternative and the status quo alternative discussed previously is the additional authority for the Sanctuary under the NMSA to enforce violations of the terms and conditions of permits and other authorizations issued by Federal or State authorities for disposal or discharge activities in the Sanctuary. NOAA-SRD will consult with the appropriate Federal or State agency on any violation of discharge and deposit requirements and authorities before any NMSA enforcement action is taken. The actual enforcement process will be detailed in an enforcement agreement that will be developed between NOAA and the State of Hawaii's DOH and DLNR.

This added enforcement authority would provide a greater deterrent to violations of existing discharge and deposit regulations. Under the NMSA, the Sanctuary can impose higher maximum civil penalties for violations of Sanctuary regulations than is possible under the MMPA or ESA. The maximum is \$100,000 under the NMSA, and \$25,000 under the MMPA and ESA. The maximum civil penalty would not be applied except for repeat offenders or particularly egregious offenders. Impacted users would be limited to only those persons subject to the regulations (as opposed to all users of the Sanctuary), and of those, only those persons in violation of Sanctuary regulations. The actual impact on those persons in violation of Sanctuary regulations will be relatively small because enforcement mechanisms are not limited to civil penalties. Rather, oral and written warnings are given routinely in lieu of civil penalties (See Table IV-3). Further, with interpretive enforcement, users subject to Sanctuary regulations will be educated as to what the regulations are and why they are in place, thus increasing future voluntary compliance and

decreasing those potentially subject to civil penalties. Consequently, there will be few impacts to Sanctuary users.

Education and interpretive enforcement focusing on the Sanctuary discharge and deposit regulations will result in greater public compliance of the regulation which will benefit humpback whales, thus increasing the experience (enjoyment of the experience as well as recreational and aesthetic experience) of Sanctuary resources for all Sanctuary users. Further, in those instances where a person who violated a Sanctuary regulation was assessed a civil penalty under the NMSA, those civil penalty monies will be returned to the Sanctuary for management and improvement (e.g., education and outreach), as opposed to being deposited in the general U.S. Treasury. Finally, NMSA enforcement will be coordinated with existing State and Federal authorities to minimize duplication of effort, thus minimizing potential cumulative effects on those users in violation of Sanctuary regulations.

e. Alteration of the Seabed

i. Status Quo: No Additional Regulation

1) Impacts on Resources

Under the status quo alternative, alteration of the seabed activities will continue to pressure the resources of the coastal zone. Deterioration of coastal habitat and degradation of water quality will continue if predicted increases occur in activities that involve alteration of and construction on the seabed (OSP 1996). These activities include harbor expansion, nearshore construction, dredging, sand mining and the laying of pipes, cables and mooring buoys on the ocean floor. Such activities can result in the disruption or displacement of habitat by humpback whales and increased turbidity levels. Moreover, loud noises or vibrations associated with blasting, drilling, dredging, and filling may result in the displacement, injury or even mortality of nearby humpback whales (Townsend 1991; Ketten et al. 1993). Large-scale projects, such as the creation of a new harbor, can cause permanent loss of habitat. While such losses may be small in comparison to the total habitat available, secondary effects such as pollution or human-whale interactions may result from more people using the newly created or expanded harbors, boat ramps, moorings, hotels and condominiums and thus increase potential threats due to whales. The consequence to humpback whales of continuing with the status quo will be further degradation of the humpback whale's habitat, particularly in coastal areas which are of critical importance to newly born calves.

Most alteration of the seabed activities are overseen by the Corps (RHA, Section 404 CWA and DLNR (CDUA). Both agencies have permit applications and review processes in place to ensure that navigable waters are maintained, human and wildlife needs are addressed, and that the State's public lands are used wisely. However, these permits are evaluated on a project by project basis, and often no consideration is given to the cumulative effects of such activities on humpback whale populations or their habitat. Without a coordinated approach and clear goals for protecting the coastal resources, human activities may continue to degrade the humpback whale's habitat. A coordinated approach and clear goals for protecting whales habitat from further degradation is currently lacking.

2) Impacts on Users

The Corps is the primary permit-granting authority at the Federal level, and DLNR is the primary permitting authority at the State level through the CDUA process. The Corps and DLNR circulate permit applications to respective Federal and State agencies for review and comment: DOH for impacts on water quality; NMFS for impacts on marine mammals and fisheries; USFWS for impacts on turtle and seabirds; and EPA if a Federal environmental impact statement is

required. The Hawaii CZMP is responsible for determining whether proposals are consistent with the State CZMA. Each project is evaluated on a case-by-case basis as to its potential impacts on commerce, navigation, human uses, and the environment.

The status quo would not add any new regulations or permit requirements. Existing Federal, State and local authorities would continue to regulate projects involving alteration or construction on the seabed. The Sanctuary would comment on the design and scope of projects as they pertain to humpback whales, through the existing permit review processes available to the general public. There would be minimal impacts to human uses from this alternative. The Sanctuary's research and education programs could help ensure that users are familiar with existing rules and regulations. Routine harbor maintenance, expansion or construction would continue to be regulated by the State of Hawaii, the counties, Corps, and EPA. New ocean dump sites could be established within the Sanctuary upon obtaining EPA and Corps permits. Sand mining is currently prohibited, with certain exceptions under State and county regulations. Department of the Navy activities such as the placement of passive hydroacoustic arrays and cable on the ocean floor or other training exercises would not be affected.

- ii. Sanctuary Alternative -- Preferred: Prohibit alteration of the seabed activities conducted in violation of the terms or conditions of a required Federal or State permit, license, lease or other authorization

#### 1) Impacts on Resources

Under this alternative, the Sanctuary would supplement the authority of existing agencies—EPA, COE, DOH, and DLNR—that regulate alteration of seabed activities such as dredge, drill, fill, and construction. This regulation improves the protection of humpback whale habitat by supplementing enforcement of existing alteration of the seabed activities, thereby strengthening compliance with the terms and conditions of required leases, permits or licenses issued by Federal or State authorities under the Clean Water Act, River and Harbors Act, Marine Protection, Research, and Sanctuaries Act, and relevant State laws and codes. This regulation does not prohibit or restrict those alteration of the seabed activities which do not require Federal or State authorization. The proposed regulation complements and supplements the existing regulatory system and ensures that humpback whales and their habitat are given consideration in existing permit processes. The Sanctuary would work within the permit review processes of relevant State and Federal agencies to ensure that the humpback whale's habitat is maintained and not degraded.

The distinction between this alternative and the status quo alternative discussed previously is the additional authority for the Sanctuary to enforce violations of existing Federal and State alteration of the seabed regulations under the NMSA and to be involved in their permit review process. Thus, the Sanctuary will have the authority under the NMSA to apply enforcement mechanisms and pursue civil violations of these discharge and deposit regulations, and will be more directly involved in humpback whale protection and management efforts. The net effect of the regulation will benefit humpback whales and their wintering habitat (as encompassed by the Sanctuary) due to increased deterrence and compliance with regulations in place to protect the whales from potentially harmful alteration of the seabed activities. The Sanctuary will consult with the appropriate Federal or State agency on any violation before any NMSA enforcement action is taken.

Since this regulation focuses on a certain types of activity (dredge, fill, marine construction, cable laying), the Sanctuary education and research programs can be focused on these activities that have the most potential to negatively impact the whales. The overall result is greater knowledge of and protection for humpback whales and their habitat. A public that is better informed because of Sanctuary resource protections regulations will be more aware of the need to

respect Sanctuary resources and will be more likely to comply with these existing regulations designed to maintain water quality and the integrity of the seabed. Finally, any information gained through the Sanctuary's long-term research and monitoring programs will benefit the entire marine ecosystem and, in turn, all industries that depend on a healthy marine environment. The net environmental effect of this regulation on the Sanctuary area will be positive.

## 2) Impacts on Users

Alteration of the seabed activities, including dredge and fill, and their impacts on navigation and the environment are regulated by the Corps under Section 10 of the RHA (dredging), by EPA and the Corps under Section 404 (discharge of dredge or fill materials) of the CWA, and by Section 103 (ocean disposal of dredge materials) of Title I of the MPRSA. Permits are also required by several State agencies for activities in State waters. The Hawaii DLNR issues CDUA permits for activities that may affect submerged state lands which are reviewed by the State Land Board. The Sanctuary will work within these existing permit review structures to ensure that Sanctuary concerns as related to the humpback whales and their habitat are addressed. The Sanctuary will not have independent authority to restrict or deny discharge or alteration of the seabed activities under CWA Section 404, RHA Section 10, State of Hawaii CDUA permits, or other permits issued by other Federal or State agencies. This regulation does not prohibit or restrict those alteration of the seabed activities which do not require Federal or State authorization. Most ports, harbors and small boat basins are excluded from the proposed Sanctuary boundary and would continue under status quo management, although the Sanctuary could still comment on projects.

SRD and NMFS are developing an MOU concerning Federal permits and consultations for activities that affect the Hawaii Sanctuary. NMFS will remain the lead, and work closely with the Sanctuary manager to address Sanctuary concerns through existing permit review mechanisms under NEPA and FWCA, and through interagency teams, such as the Pacific Regional Dredging Team administered by the Corps of Engineers. This consolidated NMFS and SRD permit review will include all NEPA actions and other permit programs reviewed under the FWCA, such as the CWA Section 404 and RHA Section 10 permits that may affect Sanctuary resources. NMFS will remain the lead agency and coordinate between the Corps of Engineers and EPA.

In addition, SRD is developing an MOU with the State of Hawaii (DOH and DLNR) to address discharge and alteration of the seabed activities. This MOU will specify procedures for Sanctuary review of applications for State permits relating to discharge and alteration of the seabed activities in the Sanctuary. A draft of this MOU can be found in Appendix E. The Sanctuary will be able to provide advice and recommendations to DLNR on specific permits, but it will not have independent authority to deny any discharge activities issued by DLNR. A separate MOU will be developed that will detail enforcement procedures between NOAA and the State.

The only distinction between this alternative and the status quo alternative discussed previously is the additional authority for the Sanctuary under the NMSA to enforce violations of the terms and conditions of permits and other authorizations issued by Federal or State authorities for alteration of the seabed activities in the Sanctuary. NOAA-SRD will consult with the appropriate Federal or State agency on any violation of alteration of the seabed requirements and authorities before any NMSA enforcement action is taken. The actual enforcement process will be detailed in an enforcement agreement that will be developed between NOAA and the State of Hawaii's DOH and DLNR.

This added enforcement authority would provide a greater deterrent to violations of existing alteration of the seabed regulations. Under the NMSA, the Sanctuary can impose higher maximum civil penalties for violations of Sanctuary regulations than is possible under the MMPA or ESA. The maximum is \$100,000 under the NMSA, and \$25,000 under the MMPA and ESA. The



maximum civil penalty would not normally be applied except possibly for repeat offenders or particularly egregious offenders. Impacted users would be limited to only those persons subject to the regulations (as opposed to all users of the Sanctuary), and of those, only those persons in violation of Sanctuary regulations. The actual impact on those persons in violation of Sanctuary regulations will be relatively small because enforcement mechanisms are not limited to civil penalties. Rather, oral and written warnings are given routinely in lieu of civil penalties (See Table IV-3). Further, with interpretive enforcement, users subject to Sanctuary regulations will be educated as to what the regulations are and why they are in place, thus increasing future voluntary compliance and decreasing those potentially subject to civil penalties. Consequently, there will be few impacts to Sanctuary users.

Education and interpretive enforcement focusing on the Sanctuary alteration of the seabed regulation will result in greater public compliance of the regulations which will benefit humpback whales, thus increasing the experience (enjoyment of the experience as well as recreational and aesthetic experience) of Sanctuary resources for all Sanctuary users. Further, in those instances where a person who violated a Sanctuary regulation was assessed a civil penalty under the NMSA, those civil penalty monies will be returned to the Sanctuary for management and improvement (e.g., education and outreach), as opposed to being deposited in the general U.S. Treasury. Finally, NMSA enforcement will be coordinated with existing State and Federal authorities to minimize duplication of effort, thus minimizing potential cumulative effects on those users in violation of Sanctuary regulations.

#### D. MANAGEMENT ALTERNATIVES

##### 1. Consequences of No Sanctuary Alternative

Should the Sanctuary be rejected by the State of Hawaii and subsequently terminated by the Secretary of Commerce, the main economic impact will be the loss to the State economy of any Federal Congressional appropriations for the Sanctuary, which would otherwise have been spent in Hawaii for salaries, contracts, supplies, rent, etc. Consumer surplus from improved visitor satisfaction due to the Sanctuary's educational, research and enforcement efforts would also be lost, as would any benefits to the tourist industry from any increases in tourism due to Sanctuary designation. There will be no direct economic impact to user groups from the removal of the Sanctuary from State waters, however, several full time contractors and ongoing education and research projects would be terminated. Existing authorities and regulations will continue to apply, but there will be no central agency coordination, enhanced enforcement, direct public involvement in whale management, and no Sanctuary-sponsored education, research, or interpretation as described in Part V. The human pressure on areas shared with the humpback whale will continue to increase, as will the number of conflicts, even if the whale population remains at its current level. Whether any new institutions would be as comprehensive and timely as the Sanctuary is unknown. Humpback whale critical habitat designation by NMFS under the ESA may become more likely, and would probably include certain areas of the main Hawaiian Islands important for reproduction and nursing activities.

##### 2. Consequences of Accepting Status Quo Alternative

Presently, numerous Federal, State, and various other regional and county government agencies are vested with some regulatory authority over specific resources and human activities. However, no single entity has management jurisdiction to ensure coordinated and comprehensive management and protection of humpback whales and their habitat. Generally, each agency manages a narrow geographic area, species or functional jurisdiction. Present arrangements, therefore, fail to provide the scope and invite the public participation needed for sufficient protection of humpback whales and their habitat. Although humpback whales are protected

primarily under two laws—the MMPA and the ESA—resource limitations have prevented the implementation of numerous education, research and long-term monitoring and enforcement initiatives. Moreover, the humpback whale and its Hawaiian habitat are not the sole focus of these laws. The formal designation of the Sanctuary requires the Sanctuary management to focus on providing coordination of existing regulatory structures and non-regulatory programs to ensure long-term protection of the humpback whales and their habitat.

a. Sanctuary Resources

The HINMSA specifically identifies humpback whales and their habitat as Sanctuary resources. However, the HINMSA also mandates the Sanctuary to identify other “marine resources and ecosystems of national significance for possible inclusion in the Sanctuary.” The Sanctuary is not however obligated to include other resources under its management regime. The status quo alternative would only consider the humpback whale and its habitat.

This alternative would focus attention on the humpback whale and its habitat as the primary Sanctuary resources. Habitat increases the scope of management concern, but it does so in a way which links the concerns of the habitat to the needs of humpbacks. This focus on humpback whales satisfies the concerns of many Hawaii resource users who want to minimize the management authority of the Federal Government in State waters. This limited scope may have fewer potential negative or positive impacts on resources users than would the scope of the Sanctuary if it were to include other marine resources or the ecosystem.

b. Administration

The status quo administrative option would delegate most Sanctuary management responsibilities to an existing Federal or State agency. This option could reduce the administrative costs, including office space and staff, needed to manage a site. However, existing agencies are already limited in their budgets for staff and programs, and may not be able to effectively implement the numerous responsibilities of the Sanctuary in addition to their own responsibilities. Existing agencies also lack the institutional knowledge and experience that SRD has in managing national marine sanctuaries. Moreover, in this era of shrinking government agencies, existing agencies may not be able to create the necessary infrastructure or hire sufficient staff to administer the site. Retaining the Sanctuary within an existing agency would also inhibit the development of an independent Sanctuary identity and may actually foster status quo management. In turn, this would not improve and supplement existing management efforts. Sanctuary management would be very complicated and uncoordinated if the research, education and enforcement components of the management program were split up between different State and Federal agencies.

c. Research and Education

The existing management system contains no coordination mechanism for maximizing the area's value for research and education, which could best be done through a comprehensive program framework. A variety of different individuals and organizations conduct significant research and outreach efforts in the Hawaiian Islands. Much of this work has been supported by private or non-profit organizations through public contributions and foundation grants. In addition, government agencies such as the NMFS fund research and education projects when funding is available. However, to date, State and Federal agencies have not had the ability to commit significant resources to support coordinated humpback whale research and education programs. As a result, scientific research and information dissemination on humpback whales has been pursued in a fragmented fashion which often does not address specific management needs.

d. Enforcement

A reliable and effective enforcement capability is necessary to ensure that regulations are observed. Currently, humpback whale approach regulations are enforced by NMFS-OE, with assistance by officers from USCG and the Marine Patrol. Officers from these agencies have been deputized through a Cooperative Agreement with NMFS to enforce Federal regulations for the protection of endangered species, including the humpback whale. These agencies have all been cut back in their budgets for staff and operations and have had to reduce on-water enforcement efforts.

A Memorandum of Understanding (MOU) exists within NOAA between NMFS and NOS concerning the enforcement of laws within National Marine Sanctuaries (Jan. 1992; amended in March 1993). NMFS-OE is responsible for enforcement within designated Sanctuaries. This measure was developed to achieve greater economy by eliminating duplication of effort in the oversight and administration of NOAA enforcement efforts.

3. Consequences of Sanctuary Preferred Alternative

This alternative supports full-time staffing and immediate Sanctuary presence in the Hawaiian Islands in order to cultivate Sanctuary support gained, and Sanctuary management conducted, during the development of the site. The wide variety of opportunities for interpretation and research requires the full-time attention of individual research and education coordinators. The Sanctuary Manager would be able to devote her/himself to the comprehensive coordination of existing agencies involved with resource protection. This initiative would help make the transition to full-time management, and to solidify public support for the Sanctuary in its stewardship role.

a. Sanctuary Resources (Future Consideration of Other Resources)

In addition to the humpback whale and its habitat, the HINMSA calls for the identification of other resources of national significance for possible inclusion in the Sanctuary. At this time, NOAA and the State do not believe that an ecosystem-based Sanctuary is appropriate for Hawaii at the present time because of recent efforts by the State to develop and implement the recently completed Hawaii Ocean Resource Management Plan. However, to fulfill the requirements of the HINMSA, the Sanctuary has developed a process which provides for the identification of marine resources and ecosystems of national significance for possible inclusion in the Sanctuary. The Sanctuary is not however, obligated to include other resources in the management regime.

The Sanctuary Management Plan outlines a process to identify and *possibly* include other marine resources based on the support and assistance of the State, the Sanctuary Advisory Council, user groups, and other members of the public. This process allows a reasoned and participatory approach to identifying resources, gathering information, and soliciting input and support from the public. There is little doubt that the community is divided on this issue. In time, NOAA would prefer to see a large marine ecosystem considered *in toto*, and including all major species and resources. However, additional resources will only be included after a very thorough review and public process. The impacts of adding additional resources to the scope of the Sanctuary management program would not be known until a detailed analysis is completed of added management measures, if any are determined to be needed.

b. Administration

Under the preferred management alternative, Sanctuary administration functions and programs would be phased in, with initial emphasis placed on research and education/interpretative activities. An independent administrative and management system would be housed in a NOAA-operated facility; Sanctuary staff members would be hired or contracted as needed. They would work under the direction of the Sanctuary manager to carry out the Sanctuary goals for research,

long-term monitoring, education, outreach and enforcement. As an independent entity that internally has a citizen Sanctuary Advisory Council and other working groups within its management structure, the Sanctuary would be in a better position to coordinate and facilitate discussions between agencies and the public. The socioeconomic impacts would be positive in that the Sanctuary operations would bring money into the Hawaiian economy in terms of salaries, contracts, supplies and facilities, and the programs carried out by the Sanctuary staff would benefit the resources and users of the resources.

### c. Research and Education

The impacts resulting from implementation of the research and education program are expected to be positive. The research program would coordinate the study of humpback whales and their habitat with developing effective management strategies. The education and outreach program would be designed to enhance public awareness of humpback whales and their Hawaiian habitat, and the importance of protecting such a special marine resource.

The research program would provide a coordinated effort to obtain vital baseline and monitoring data on humpback whales and their habitat, and on human activities in the Sanctuary. Information on the humpback whale's population abundance, distribution, behavior, and habitat needs would be used in assessing the health of the Hawaiian Islands marine environment and the effects of human activity in the area. This would improve management's ability to develop long-term planning for the Sanctuary and for humpback whale recovery efforts.

While some whale research can be done from observation platforms on land using spotting scopes, studies involving photography for fluke identification, gender determination, behavioral responses, etc. require closer observation of the whales in their natural environment than the 100 yards normally allowed. Researchers who approach humpback whales within 100 yards are required to get a NMFS MMPA/ESA research permit. To avoid a duplicative review process, SRD and NMFS-Office of Protected Resources have developed a MOU to jointly review and comment on MMPA/ESA research permit applications. Thus, the Sanctuary will work within the existing MMPA/ESA research permit process to address Sanctuary concerns. The net effect on the research community will be minimal since they will not be required to obtain a separate Sanctuary permit.

One of the purposes of the Sanctuary is to conduct or to sponsor research on Sanctuary resources. Much of the Sanctuary-funded research will address specific management issues and provide opportunities for researchers to share techniques and exchange information. The Sanctuary will work closely with NMFS, the Marine Mammal Commission, MMPA scientific review groups, local and national researchers, and other interested parties to sponsor field workshops, symposia, or other programs to enhance the exchange of information. The Sanctuary will also encourage research on other marine resources and ecosystems so that the Sanctuary Manager, the Sanctuary Advisory Council, and ultimately NOAA can determine whether other resources should be included in the Sanctuary. Research and long-term monitoring programs can provide the Sanctuary and other resource managers with the necessary information for better resource management and protection. The Management Plan proposes that the SAC establish a Research Working Group to focus on complementing existing efforts and filling needed research gaps.

To date, the Sanctuary has provided funds to assist graduate students in the completion of research reports, co-sponsored and funded research coordination meetings and technical consultations, and funded and collaborated with NMFS to organize a "Workshop to Assess Research and Other Needs and Opportunities Related to Humpback Whale Management in the Hawaiian Islands," held in Kaanapali, Maui on April 26-28, 1995. This last workshop brought

together researchers and resource managers to help NMFS and the Sanctuary identify priorities in the implementation of the Humpback Whale Recovery Plan and the Sanctuary Management Plan.

The Sanctuary Education and Outreach Program will also play a crucial role in Sanctuary management efforts. NOAA is a scientific and management agency often described as the "Earth Sciences" agency. The direction received from the leadership of NOAA places great emphasis on using the sciences to benefit the resources as well as the public, either working independently or cooperatively with existing institutions and organizations. Projects will be initiated to achieve one of the purposes of the HINMSA, "to educate and interpret for the public the relationship of humpback whales to the Hawaiian Islands marine environment." The Management Plan [Part V(D)] identifies the goals, objectives, and strategies to achieve those objectives. Funds will be used to develop educational programs or support the development of programs which can be used by schools, information or visitor centers, and marinas.

The Sanctuary has also sought out opportunities for partnerships with government agencies and the private sector to develop educational outreach programs. For example, the Sanctuary worked with the State, Maui County and the Pacific Whale Foundation to develop the "*Watching Hawaii's Humpback Whales*" brochure, worked with NMFS to develop a pocket humpback whale information/approach regulation guide, participated in numerous whale celebrations, and developed educational displays with other organizations and museums. The Sanctuary has also initiated a Maui Education Working Group to help identify priorities for educational programs and to promote information exchange. This group will serve as a model for an SAC Education Working Group.

#### d. Enforcement

The overall impacts of the Sanctuary enforcement program should be positive since its goal is enhanced coordination and support of existing authorities, and to achieve voluntary compliance through education. The authority vested in NMFS under MMPA and the ESA have been used to protect humpback whales in Hawaii since the 1970s. The Sanctuary Management Plan calls for the continued use of that authority to prevent the "taking" or harassment of whales. The Sanctuary will rely upon a MOU between NMFS and NOS concerning the enforcement of laws within National Marine Sanctuaries. Under the terms of the MOU, NMFS-OE will provide enforcement in the Sanctuary, in consultation with the Sanctuary manager. NMFS also has a Cooperative Agreement with USCG and DLNR-DOCARE, which deputizes these agencies to enforce MMPA and ESA regulations. The Sanctuary will work with DOH, DLNR, EPA, USCG, and COE to cooperatively monitor and enforce existing water quality, discharge, and alteration of the seabed regulations. NOAA will consult with the appropriate Federal or State agencies on any violation of discharge and alteration of the seabed requirements and authorities. Ultimately, NOAA will seek to develop a MOU or other form of agreement between the Sanctuary and other agencies on coordinated enforcement activities and actions.

Throughout the Sanctuary scoping process and at subsequent town meetings, numerous individuals and organizations expressed concern that the Sanctuary would lead to closure of their businesses and loss of their livelihoods or way of life. Many were worried that the Sanctuary would become more intrusive in the future and place restrictions on their activities. Since the existing authorities will serve as the basis for enforcement, an analysis of historical enforcement is provided below.

Table IV-3 shows by year, a history of enforcement of the approach regulations by the NMFS Southwest Enforcement Division, with the number of complaints received (often phoned in by other marine users or other agencies), the type of harassment reported, and warnings and citations issued. While the number of citations reflects to some degree the number of patrol days by agents, it also reflects the reporting of individual observations of violations on land or water.

**TABLE IV-3: Record of Enforcement Activities for the Protection of Hawaiian Islands Humpback Whales**

Year	Complaints Received	Type of Harassment										Total	Warnings	Citations	Unfounded or Lack of Evidence	Maui Patrol Days
		Sailing Vessels	Power Vessels	Wind Surfer	Hand Power	Thrill Craft	Commercial Fishermen	Aircraft	Whale Watch	Research	Other					
1976-7	58	3	8	0	0	0	0	3	5	9	0	28	2	2-1	-	NR
1977-8	51	6	7	0	0	0	1	4	3	6	0	27	3	4	-	NR
1978-9	35	9	7	0	0	1	1	0	1	2	2	23	6	7	-	NR
<b>NOTICE OF INTERPRETATION OF HARASSMENT PUBLISHED JANUARY 4, 1979</b>																
1979-80	16	3	1	0	0	0	0	6	0	6	0	16	0	1	-	NR
1980-1	24	1	5	0	0	0	0	4	3	8	3	24	0	3	-	NR
1981-2	28	3	7	0	0	0	0	2	4	7	3	26	12	3	-	104
1982-3	66	16	18	3	4	1	1	5	19	11	1	79	21	6	-	116
1983-4	35	5	11	0	2	2	0	0	7	8	0	35	20	2	-	117
1984-5	18	5	3	0	2	1	0	0	6	0	1	18	13	0	-	67
1985-6	38	6	9	2	1	2	0	3	7	5	3	38	20	1	15	80
Maui Other Is.	1	1	1									1				
1986-7	35	8	11	3	0	0	1	0	6	4	2	35	12	1	23	76
Maui Other Is.	10	1	4	0	1	0	0	0	1	2	2	11	3	1	8	
1987-8	68	19	24	0	4	2	2	1	4	7	6	68	22	7	39	73
Maui Other Is.	26	1	11	1	0	0	0	0	3	6	4	26	7	0	19	
<b>INTERIM RULE ON APPROACHING HUMPBACK WHALES IN HAWAIIAN WATERS BECAME EFFECTIVE DECEMBER 23, 1987</b>																
1988-9	38	2	8	0	8	2	1	1	9	6	1	38	8	12	18	57
Maui Other Is.	18	2	7	0	1	0	1	1	2	4	0	18	7		9	
1989-90	23	2	10	1	2	1	0	1	3	1	2	23	7	5	11	61
Maui Other Is.	13	0	6	0	0	1	0	2	3	1	0	13	0	0	12	
1990-1	40	4	11	0	4	0	1	1	16	7	2	40	12	9	19	65
Maui Other Is.	12	2	7	1	0	1	0	1	0	0	0	12	0	0	11	
1991-2*	86	0	25	12	24	1	0	2	13	0	9	86	11	17	56	202
1992-3*	47	3	10	0	6	1	2	0	9	12	4	47	7	10	30	122
1993-4*	43	3	0	3	8	0	0	0	9	4	8	43	1	3	39	111
1994-5	28	1	4	1	7	0	0	2	0	0	13	28	N/A	N/A	27	103
Maui Other Is.	16	0	7	0	0	1	0	0	5	0	3	16	N/A	N/A	0	
1995-6**	41	9	9	-	3	3	-	3	4	-	1	41	N/A	N/A	N/A	-
Maui Other Is.	19	1	7	-	5	-	-	2	-	1	-	19	N/A	N/A	N/A	

\* NMFS Office of Enforcement concentrates the majority of its humpback whale enforcement in the Four-Island area of Maui County, although the data combines Maui County with the other islands.

\*\* In 1995-6 there were 2 unknown vessels reported and 10 humpback whale strandings.

N/A: Data not available

From 1976 through 1991, most complaints were lodged against power vessel operators, whale watch vessel operators, researchers and sailing vessel operators. Few complaints were recorded against commercial fishers, and no citations have been issued to them. Records show that a substantial number of the complaints have involved activities on islands other than Maui, but that few citations have actually been issued as a result, whether because of a lack of evidence or because the complaints were felt to be unfounded. NMFS-OE requires corroborating evidence to support a complaint in the form of photos, film or video; otherwise, it is difficult to enforce the approach regulations if an enforcement officer is not physically present when the violation occurs. For the latest 1993-1994 season of record, the NMFS investigated a total of 47 complaints during the migration season and took formal action in only eight cases. None of the incidents involved commercial whale watching vessels operating in Maui County. One case involved a charter vessel from Honolulu and another involved a charter helicopter in Kauai County. The remaining six incidents involved private citizens that allegedly violated the NMFS approach regulations (E. Witham, pers. comm. 1994).

NMFS issued nearly three times as many warnings as actual citations—the intent of enforcement is not to issue as many citations as possible, but rather to achieve compliance with the regulations. The enhanced enforcement the Sanctuary will bring does not necessarily imply an increase in the number of enforcement officers or in the issuance of citations for violation of whale approach regulations. Part of the increased effort will be to educate users about the approach regulations and other Sanctuary regulations, as these address activities most likely to have some impact to humpback whales or their habitat. The Sanctuary will also work to initiate and foster better dialogue between the user groups and the enforcement officers. Enforcement efforts will be expanded throughout the main Hawaiian Islands if the preferred Sanctuary boundary alternative is ultimately selected. Successful enforcement, however, will be measured over time by fewer complaints and citations, better informed marine users, and higher compliance with the regulations.

Historically, citations or fines for violation of the NMFS humpback whale approach regulations have ranged from a few hundred to several thousand dollars, and, in a few cases, to the confiscation of personal property such as a wind-surfboard. Fines are levied according to the violation and the surrounding circumstances. Penalties for regulations established under the NMSA are created under civil law and therefore differ from those established under some other Federal/State jurisdictions within the Sanctuary (those established under criminal law). This will have both positive environmental benefits and overall positive socioeconomic benefits for the Sanctuary. The resources of the Sanctuary will receive a greater level of protection by providing civil authority to other agencies through cross-deputization. Enforcement of regulations is best facilitated by agencies cross deputizing to enforce civil penalties.

Civil authority and coordinated enforcement under the NMSA have positive socioeconomic impacts on society in general in that there are cost savings to the public when agencies can share authorities and combine human and material resources. The Sanctuary regulations provide supplemental civil penalty options. In some cases, civil may be more appropriate than criminal. In some cases, use of both civil and criminal may be appropriate. The resources can be better protected when there are more options for individuals enforcing the regulations. This, in turn, should lead to greater environmental and socio-economic benefits.

Civil authority lends itself more freely to an educational and interpretive approach to enforcement of regulations in National Marine Sanctuaries. Simply the message that something is a Sanctuary violation is all that is needed to gain compliance with the vast majority of Sanctuary users. This concept underscores one of the most important goals of a Sanctuary enforcement program - to obtain through education voluntary compliance with regulations in place which provide protection (directly and indirectly) for humpback whales and their habitat. However, if voluntary enforcement is not effective, the NMSA provides the authority for NOAA to assess civil penalties



of up to \$100,000 per day, per violation. While it is very unlikely that a violation of the whale approach rules would result in the levy of such a high fine, the Sanctuary program has the option to assess a range of civil penalties based on the circumstances of the violation. Furthermore, civil penalties collected under the NMSA may be used to manage and improve the Sanctuary.

#### E. UNAVOIDABLE ADVERSE ENVIRONMENTAL AND SOCIOECONOMIC IMPACTS

The implementation of a management plan designed to protect humpback whales and their habitat will not produce adverse environmental impacts, regardless of the management alternative selected for regulations, boundaries, research, long-term monitoring, education, and outreach. Humpback whales and their habitat will benefit from additional research, educational and protective measures. The Management Plan does not envision implementing projects related to the Sanctuary which would degrade environmental quality.

The attention drawn by the mere fact of Sanctuary designation may increase the number of tourists to Hawaii, at least temporarily. This in turn will lead to some socioeconomic benefits, due to increased tourist dollars—and some socioeconomic costs, due to increased pressure on the habitat (pollution and human-whale interactions). However, publicity for Hawaii is already high from other causes, and Sanctuary designation is not expected to add substantially to the rapidly increasing annual flow of tourists. Both positive and negative socioeconomic impacts from increased tourism are expected to be relatively minor. A greater consequence of the Sanctuary is likely to be the enhanced experience of those visitors who would have come to Hawaii in any case.

Certain human activities may be affected because of the need to protect the whales. Since the Sanctuary will essentially rely on existing Federal and State authorities to protect the humpback whales and their habitat, these effects will not be attributable to the Sanctuary per se. For example, the State of Hawaii administers provisions of the Clean Water Act regulating point-source discharges and requiring discharges to meet minimum water quality standards. These requirements would not change under the Sanctuary management regime and the social and economic impacts caused by them would continue. The Sanctuary may make recommendations on permit applications through consultation with other agencies, that conditions be placed on activity permits in order to lessen impacts on humpback whales or their habitat. These recommendations, if adopted, may place some additional economic or social constraints on the applicant, however, any such impacts will likely be outweighed by the benefits to Sanctuary resources. Moreover, agencies are not mandated to follow such recommendations. Finally, if certain violations of law are prosecuted under the NMSA, violators could potentially face civil fines greater than the current maximum under other laws, although it is likely that in most instances, fines will not significantly increase over those assessed under the MMPA and the ESA.

## F. RELATIONSHIP BETWEEN SHORT-TERM USES OF THE ENVIRONMENT AND THE MAINTENANCE AND ENHANCEMENT OF LONG-TERM PRODUCTIVITY

Hawaii is one of the largest single breeding areas for humpback whales in the world. Sanctuary designation emphasizes the importance of the humpback whale and its Hawaiian habitat. The overall purpose of the Sanctuary's Management Plan and its strategies for agency coordination, research, education, and enforcement is to enhance long-term protection and increase public awareness and appreciation for these resources. The Management Plan does not propose any short-term uses of the environment which would degrade long-term productivity. Increased protection of humpback whale habitat and greater compliance with existing regulations will likely benefit other marine species in Hawaii and contribute to a healthier marine environment in the long-term.

## G. RELATIONSHIP BETWEEN THE PROPOSED ACTION AND EXISTING RESOURCE MANAGEMENT PLANS

### 1. Impacts Related to Management Plan Purposes

Section 2306 of the HINMSA calls for the preparation of a comprehensive management plan to:

- *Facilitate all public and private uses of the Sanctuary (including uses of Hawaiian natives customarily and traditionally exercised for subsistence, cultural, and religious purposes) consistent with the primary objective of the protection of humpback whales and their habitat.*

The Management Plan and regulations do not open up access to public and private uses where those uses and activities are restricted by other laws, regulations, or governance options. For example, the Sanctuary would not open up access to restricted use zones such as the State MLCD's, military exclusion or target zones, or other areas designated by Federal, State, or county authorities with more restrictive standards. The Sanctuary Management Plan would place no prohibitions on activities and uses which are in compliance with existing authorities. The Management Plan provides for the establishment of a Sanctuary Advisory Council which will be representative of the many public and private uses of the marine environment in order to ensure that the concerns of these users are given every consideration in future Sanctuary related activities (see Part V and Appendix D). The Management Plan also proposes a proactive program to work with various users, including Native Hawaiians, to facilitate their continued use and access to the marine waters.

- *Set forth the allocation of Federal and State enforcement responsibilities, as jointly agreed by the Secretary and the State of Hawaii; and ensure coordination and cooperation between Sanctuary managers and other Federal, State and local authorities with jurisdiction within or adjacent to the Sanctuary.*

The Management Plan's preferred regulatory alternative is to utilize existing authorities, and allow all activities within or outside of the Sanctuary which are conducted under, and in compliance with, a required permit, license, lease or other specific authorization from other Federal and State authorities. One of the benefits of the program will be its ability to ensure coordination and cooperation among appropriate agencies. The benefits associated with such coordination and cooperation are often subtle, but important, because the potential for conflict is minimized and better management decisions are ultimately made.

- ***Identify research needs and establish a long-term ecological monitoring program with respect to humpback whales and their habitat.***

The Management Plan describes the elements of a long-term research and monitoring program along with priorities and a method for determining research needs. The Sanctuary Manager, the Research Coordinator, the Sanctuary Advisory Council, and NMFS will help to set an agenda to meet the goals and objectives of all pertinent legislation--the ESA, the MMPA, the NMSA, and the HINMSA. The task will be to ensure that funding devoted to research and monitoring will complement other activities and to strive to incorporate research findings into management. Many other interested parties are conducting research on humpback whales in Hawaii, including academic institutions, non-profit organizations, and other government agencies, and all have legitimate roles. There may be a point at which coordination between researchers and sharing a common database or research protocol may benefit not only the research community, but the whales as well.

## **2. Relationship Between Sanctuary Management Plan and Other Humpback Whale and Ocean Management Plans and Programs**

### **a. Final Recovery Plan for the Humpback Whale**

The Final Recovery Plan for the Humpback Whale seeks to achieve a level of 60 percent of the pre-commercial exploitation population (considered a maximum sustainable yield level) before NMFS will consider downlisting it from endangered to threatened, or de-listing the humpback whale as an endangered species altogether (NMFS, 1991). In Hawaii, this would equate to a population of approximately 9,000 whales for the eastern North Pacific stock. Recent estimates indicate that perhaps some 3,000 whales migrate to Hawaii each winter (Mobley et al. 1993). It may take many more years of directed or focused attention, not just in Hawaii, but in Alaska and other Pacific Coast environments and perhaps the waters off Japan, to ensure that the population can continue to increase by ensuring that human activities remain compatible and habitats remain conducive to the recovery effort.

The Final Recovery Plan identifies four major objectives which will help lead to a recovery of the whale population. The objectives include:

- maintain and enhance habitats used by humpback whales currently or historically;
- identify and reduce direct human-related injury and mortality;
- measure and monitor key population parameters; and
- improve administration and coordination of recovery program for humpback whales.

Both the Management Plan and Annual Plans for the Sanctuary will be able to materially assist in achieving these objectives and many of the relevant sub-tasks identified under each objective. The Management Plan suggests that the Recovery Plan serve as a guide to direct some of the future efforts of Sanctuary implementation. Furthermore, in Hawaiian waters, the Sanctuary will be able to provide a leadership role in recovery, as one Sanctuary objective is to provide a comprehensive and coordinating role for the protection of humpback whales. The National Marine Sanctuary Program will be able to form linkages and support for NMFS activities in these other areas of the Pacific in order to develop a more comprehensive program for humpback whale protection.

### **b. Hawaii Ocean Resources Management Plan**

In order to understand how the Sanctuary will be coordinated with the existing management regime in Hawaii, it is useful to examine the State's policy on marine ecosystem protection as articulated in the *Hawaii Ocean Resources Management Plan* (ORMP) developed by

the Hawaii Ocean and Marine Resources Council (OMRC). The ORMP's section on marine ecosystem protection presents main objectives and policies:

The main objective is to:

*Provide for protection of marine and coastal ecosystems, and establish a comprehensive system of marine and coastal protected areas within an integrated program which protects, preserves, and enhances marine species and areas of exceptional resource value on each main island, representing each of the natural ecosystems and resources found in the marine and coastal environment of the State (OMRC 1991:27).*

The four main policies to implement these objective are:

***Policy A: Expand protection of species, natural habitats, and other resources of exceptional value, thereby minimizing environmental degradation from marine and coastal activities and uses (OMRC 1991:27).***

Implementing actions direct DLNR and the Hawaii Office of State Planning (OSP) to prepare "a comprehensive and cohesive statewide master plan for marine and coastal protected areas..."; "identify areas of exceptional resource value which should be considered for protected area status"; and "establish a system of marine and coastal protected areas throughout the State to protect the best examples of these natural ecosystems and resources on each island" (OMRC 1991:27). The establishment of the Sanctuary in Hawaii can complement this effort because the HINMSA states that the purposes of the Sanctuary are, inter alia, "...to protect humpback whales and their habitat;" "to manage such human uses of the Sanctuary consistent with this subtitle and Title III of the Marine Protection, Research and Sanctuaries Act;" and "...to provide for the identification of marine resources and ecosystems of national significance for possible inclusion in the Sanctuary."

***Policy B: Facilitate coordinated and comprehensive inter-agency management where jurisdiction overlaps exist between Federal, state, and county governments in marine and coastal protected areas (OMRC 1991. 28).***

Implementing actions direct DLNR and OSP, in conjunction with appropriate Federal, State, and county agencies, to "facilitate and coordinate Federal, state, and private-cooperative research and monitoring efforts at developing baseline information regarding the locations of critical habitats of endangered and threatened species"; "Encourage the designation of these critical habitats as protected areas"; and "Encourage joint efforts of Federal, State, county, private, and community involvement in marine life and water quality monitoring programs" (OMRC 1991:28). The establishment of the Sanctuary could complement these efforts. According to the HINMSA, the Sanctuary Management Plan is to "ensure coordination and cooperation between Sanctuary managers and other Federal, State, and county authorities with jurisdiction within or adjacent to the Sanctuary."

***Policy C: Improve enforcement of regulations protecting marine and coastal protected areas and species (OMRC 1991:29).***

Implementing actions include establishing several Memoranda of Understanding between Federal and State agencies to enable personnel from these agencies to enforce both State and Federal regulations" (OMRC 1991:29). The HINMSA states that the Sanctuary Management Plan shall "...set forth the allocation of Federal and State enforcement responsibilities, as jointly agreed by the Secretary [of Commerce] and the State of Hawaii". This builds on efforts already underway such as the cross-deputization of State enforcement agency personnel to enforce Federal laws and regulations. The Marine Patrol has been deputized to enforce NMFS rules regarding

harassment of marine mammals. There have been other efforts to coordinate enforcement activities, such as a UH Sea Grant supported project called REACH (Resource Enforcement And Conservation Hawaii) that sponsored a series of workshops for Federal, State, and county enforcement agencies to improve coordination and public participation.

***Policy D: Enhance local community awareness, appreciation, and participation in marine conservation and preservation efforts (OMRC 1991. 29).***

Various implementing actions include holding public programs focusing on natural, cultural, and historical values; facilitating public participation in ocean resources management plan development; and supporting the development of interpretive centers (OMRC 1991). The HINMSA supports this policy as it states that one purpose of the Sanctuary is to "educate and interpret for the public the relationship of humpback whales to the Hawaiian Islands marine environment." Also, the HINMSA states that the Sanctuary Management Plan will "promote education, among users of the Sanctuary and the general public, about conservation of humpback whales, their habitat, and other marine resources." During development of the Draft EIS/MP, NOAA provided numerous opportunities for public participation in the planning process.

As shown in this analysis, the purposes for which the Sanctuary has been established complements the State's policies and objectives regarding marine ecosystem protection as set forth in the ORMP.

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## PART V: SANCTUARY MANAGEMENT PLAN

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## A. INTRODUCTION

### 1. Sanctuary Purposes

The Hawaiian Islands Humpback Whale National Marine Sanctuary (Sanctuary) was Congressionally designated by the Hawaiian Islands National Marine Sanctuary Act (HINMSA, or Act) on November 4, 1992 (Subtitle C of Public Law 102-587, the Oceans Act of 1992). Section 2304 of the Act establishes the Sanctuary's purposes as follows:

- (1) to protect humpback whales and their habitat within the Sanctuary;
- (2) to educate and interpret for the public the relationship of humpback whales to the Hawaiian Islands marine environment;
- (3) to manage human uses of the Sanctuary consistent with the HINMSA and Title III of the Marine Protection, Research and Sanctuaries Act (MPRSA)<sup>1</sup>, as amended; and
- (4) to provide for the identification of marine resources and ecosystems of national significance for possible inclusion in the Sanctuary.

These purposes are consistent with the overall goals and objectives of the National Marine Sanctuary Program (NMSP), which are to: enhance resource protection through comprehensive and coordinated conservation and management; support, promote, and coordinate scientific research on, and monitoring of, site-specific marine resources; enhance public awareness, understanding, appreciation and wise use of the marine environment; and facilitate to the extent compatible with the primary objective of resource protection, public and private uses of national marine sanctuaries.

### 2. Comprehensive Management Plan

In addition to designation of the Sanctuary, Section 2306 of the HINMSA requires that NOAA prepare, in consultation with interested persons and appropriate Federal, State and local authorities, a comprehensive management plan and implementing Sanctuary regulations, in accordance with the National Marine Sanctuaries Act (NMSA), to achieve the purposes and objectives of the Sanctuary.

#### a. Purposes of the Management Plan

Section 2306(a) of HINMSA, states that the management plan shall:

- facilitate all public and private uses of the Sanctuary (including uses of Hawaiian natives customarily and traditionally exercised for subsistence, cultural, and religious purposes) consistent with the primary objective of the protection of humpback whales and their habitat;
- set forth the allocation of Federal and State enforcement responsibilities, as jointly agreed by the Secretary and the State of Hawaii;
- identify research needs and establish a long-term ecological monitoring program with respect to humpback whales and their habitat;
- identify alternative sources of funding needed to fully implement the plan's provisions and supplement appropriations [under section 2307 of this subtitle ] and section 313 of the NMSA (16 U.S.C. §1444);
- ensure coordination and cooperation between Sanctuary managers and other Federal, State, and County authorities with jurisdiction within or adjacent to the Sanctuary; and

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<sup>1</sup> Title III of the MPRSA is also known as the National Marine Sanctuaries Act (NMSA).

- promote education among users of the Sanctuary and the general public about conservation of the humpback whales, their habitat, and other marine resources.

Finally, section 2306 of the Act requires that NOAA provide for the public's participation during the development of the comprehensive management plan. To fulfill this requirement, NOAA held six public scoping meetings and accepted written and oral comments on each of the main Hawaiian Islands and one in Washington, D.C. during March 15-30, 1993; held seven public meetings and accepted written comments on each of the main Hawaiian Islands (two on the Big Island) during March 10-21, 1994; and participated in four public Sanctuary Working Group (SWG) meetings comprised of members of Sanctuary user groups, Native Hawaiians, and other Federal, State, and county agencies.

The Draft EIS/MP was released to the public on September 15, 1995. During the 90-day public comment period, NOAA held over 25 statewide public information meetings to describe the Draft EIS/MP and answer questions. In addition, seven formal public hearings were also held to receive formal oral and written testimonies. By the end of the comment period, NOAA received over 250 written comments and oral comments on the DEIS/MP. Apart from formal meetings, NOAA's on-site Sanctuary staff person, assisted by two contractors (one on Kauai and one in Honolulu), has conducted outreach efforts and spent considerable time meeting with various public interest groups and government agencies.

#### **b. General Uses of the Management Plan**

The specified requirements of the Sanctuary's management plan are compatible with the overall sanctuary management concept embodied in the NMSA, and its implementing regulations (15 CFR Part 922), which require that a management plan be prepared for each national marine sanctuary. The HINMSA requires NOAA to comply with the NMSA in developing the management plan and implementing regulations. Section 2306(a) of the HINMSA requires the Sanctuary to follow the procedures specified in sections 303 and 304 of the NMSA, 16 U.S.C. §§1433 and 1434.

The management plan proposes actions tailored to specific issues affecting the Sanctuary. The plan recognizes the need for facilitating human uses of the Sanctuary compatible with the primary purpose of protecting humpback whales and their habitat. Successful implementation of the management plan will require continuing cooperation and coordination among many Federal, State and county agencies and representatives, as well as private organizations and individuals. Information exchange, sharing of facilities and staff, and coordination of policies and procedures for resource protection will be features of all Sanctuary programs, including research, monitoring, enforcement and education. This management plan is designed to provide guidance for management of the Sanctuary for at least the first five years of its operation. During this period, management initiatives will generally fall into five fundamental program areas: resource protection, research and long-term monitoring, education and outreach, administration, and enforcement. The following sections of this management plan describe the goals, guidelines, and initiatives for each of these programs. In general, the management plan:

- focuses on Sanctuary goals and objectives, management responsibilities, and guidelines for the resource protection, research, education, and administration programs of the Sanctuary; and
- establishes an administrative framework which addresses the need for cooperative and coordinating programs and activities with other Federal and State agencies, as well as private organizations and interested citizens to ensure effective management of the Sanctuary.

The Sanctuaries and Reserves Division (SRD), within NOAA is responsible for overall management of the Sanctuary. SRD has been working in partnership with the State of Hawaii to develop the Sanctuary management plan and will look to develop partnerships with other Federal, State and county resource management agencies, and other organizations, as appropriate, during implementation. As required by Section 304(e) of the NMSA [16 U.S.C. §1434(e)], the Secretary, at a minimum of every five years, shall evaluate the substantive progress towards implementing the management plan and goals for the Sanctuary, and shall revise the management plan and regulations, as necessary, to fulfill the purposes and policies of the Sanctuary. Although variable funding for staff and program development may affect specific aspects of Sanctuary management described in this plan, the goals and objectives of the plan will remain unchanged unless, if after the ongoing and five-year review, SRD makes specific changes.

### **3. Sanctuary Goals and Objectives**

Management strategies planned for the Sanctuary are directed towards meeting specific goals and objectives contained within this management plan. Short-and long term implementation objectives are listed below. Although goals and objectives are discretely identified, in many instances, the goals meet overlapping purposes. For instance, in addition to addressing specific objectives, both research and educational activities also contribute to resource protection and to the enhancement of compatible public uses of the Sanctuary.

The highest management priority for the Sanctuary is the long-term protection of the North Pacific population of humpback whales and their wintering habitat. Effective protection and management of these resources is dependent on the Sanctuary's size, location, accessibility, staffing, budget, and the coordination of management responsibilities between the State of Hawaii, Federal agencies, and the various marine users. The Sanctuary receives moderate-to-high levels of human use, with particularly high levels of visitation year-around. The proximity to shore and accessibility of the site indicate the need for a Sanctuary management structure which provides for coordination of resource protection, research, education, and administrative activities.

Understanding the ecological relationships between humpback whales and the habitats upon which they depend is of primary importance for providing comprehensive and coordinated protection of this endangered species. The Sanctuary management plan proposes research and monitoring programs which will characterize and monitor environmental conditions over the short-and long-term. This continuing program will provide the basis for detecting significant changes in the status of humpback whale populations and their wintering habitat. These data bases and predictive studies will, in turn, provide the basis for improved decision making, the formulation of action plans, and response mechanisms to unforeseen threats to the Sanctuary's environment.

Interested individuals, organizations, and government agencies will play an important role in achieving resource protection goals in the Sanctuary. Inherent to this management plan, and critical to its success, are effective education and interpretive programs to enhance public understanding and support for management objectives. The HIIHWNMS will provide a unique opportunity to inform the public about both the value of protecting its valuable resources and the need for long-term management of the overall Sanctuary. Communicating these messages effectively to the public will depend on publications, exhibits, and special outreach events tailored to a variety of public audiences. Mutual objectives shared between NOAA and the State of Hawaii demonstrate clearly the challenges and opportunities outlined in this Sanctuary management plan.

Following is a preliminary listing of short- and long-term objectives for the Sanctuary, involving activities in the resource protection, research and long-term monitoring, education and outreach, administration and enforcement. Additional items and projects will be added as both the need and means are identified.

**a. Short-Term Objectives****Facilitate Coordination and Cooperation**

An important first Sanctuary task will be to strengthen working relationships with appropriate Federal, State and county agencies to ensure the Sanctuary mandate can be achieved through a cooperative management strategy. Of particular importance to the success of this management plan is the continuing involvement and coordination of various Federal and State authorities involved in activities which either directly or incidentally afford protection for humpback whales and their habitat. Since the Sanctuary is relying on these existing authorities and their permitting processes, it is crucial to develop working partnership so that mutual concerns and mandates are constructively addressed.

Efforts to establish and strengthen working relationships have already been initiated through meetings, communications, and participation on Sanctuary advisory groups/working groups among NOAA on-site Sanctuary Staff and representatives of Federal, State, and county agencies. Sanctuary staff will continue these activities through meetings with, and directed outreach to, other agencies and institutions operating in the Sanctuary area, to solicit their input in the on-going development of the site, to familiarize them with the Sanctuary's mandate and staff, and to determine appropriate working relationships and mutual agendas. These meetings will include, among others, the Departments of Health; Land and Natural Resources; Transportation; Business, Economic Development and Tourism; State Planning; Education; Public Safety; Kahoolawe Island Reserve Commission (KIRC), Office of Hawaiian Affairs (OHA), and the University of Hawaii. Additionally, outreach and discussions will continue with representatives of county governments and agencies, as well as Native Hawaiian groups, local businesses, tourism and recreation industry, agricultural, recreational, and fishing representatives, to ensure that local concerns related to the Sanctuary's management are addressed. Finally, NOAA will continue to develop working relationships and agreements with representatives of Federal agencies with jurisdictional responsibilities in the area of the Sanctuary, including: the National Marine Fisheries Service (NMFS) (within NOAA), Department of Transportation (DOT), U.S. Coast Guard (USCG); U.S. Environmental Protection Agency (EPA); U.S. Department of Defense (DOD) [U.S. Air Force, U.S. Navy, U.S. Marine Corps, U.S. Army, U.S. Army Corps of Engineers (COE)].

The Sanctuary staff will work with other agencies to facilitate coordination of resource management programs, and to encourage the exchange of information related to these programs. The Sanctuary will also support management-related research and monitoring activities through funding, staffing, and by other appropriate means as available. Among the most important items on the Sanctuary's research agenda is a comprehensive characterization of the North Pacific humpback whale's status, vital rates and winter habitat. These data will contribute significantly to refining the Sanctuary's management.

The commercial, recreational, Native Hawaiian and other interested publics can play important roles in attaining resource protection and management goals in the Sanctuary. Educational and interpretive programs will be aimed at improving public understanding of, and hence support for, the Sanctuary's management objectives. Important to the success of these activities is coordination with, and support of, existing interpretive and education programs. Communication tools to aid in this overall objective will include publications, exhibits, school curriculum, and special events that convey the national significance of the Sanctuary's resources, in particular, the humpback whale, to both the in-state and the out-of-state publics. The Sanctuary's management plan, in part through its educational programs, will highlight the linkages between the health of the Sanctuary's resources and qualities, and the future vitality of public uses, such as Native Hawaiian uses, fishing and whale related activities.

### Facilitate Sanctuary Advisory Council Activities

The Hawaii Sanctuary Advisory Council (SAC) has met five times since it was established by NOAA in March, 1996. The SAC consists of appointed representatives of Federal and State government agencies, representatives from individual counties, Native Hawaiians, fishermen, research and education organizations, and commercial and environmental interests. The purpose of the SAC is to provide advice and recommendations to the Sanctuary Manager and NOAA on the continued development and management of the Sanctuary. The SAC has helped NOAA respond to public comments received on the Draft EIS/MP and has formed education and research working groups to help the Sanctuary identify Sanctuary priorities and opportunities to work with the local community. The SAC will play a key role in advising on management priorities, and in coordinating Sanctuary activities with those of other State and Federal agencies. NOAA will work closely with the SAC and support its efforts to facilitate coordination with affected user groups and government agencies. NOAA will assist the SAC in forming working groups and helping to ensure broader public input into the management of the Sanctuary.

### Upgrade Sanctuary Offices and Hire/Contract Additional Staff

NOAA will continue to upgrade its Sanctuary office in Kihei, Maui, housing administrative offices and staff. The site and facilities are owned by NOAA and will likely remain the administrative headquarters of the Sanctuary. NOAA will also evaluate the financial resources of the Program and determine where, if any, additional Sanctuary offices or staff need to be established. Over the longer term, a Sanctuary Visitor Center may also be established either on-site, or in conjunction with another facility or organization.

#### **b. Long-Term Objectives**

### Improved Data Base on Humpback Whales and Status of Their Habitat

To meet the primary objective of long-term protection of the central North Pacific population of humpback whales and their habitat, NOAA anticipates implementation of targeted research and monitoring program to address the status of these resources over the long-term. In addition to Sanctuary-supported research and monitoring, it is anticipated that NOAA will also enter into cooperative projects with other Federal, State and/or private agencies, organizations or individuals to achieve the overall primary goal of long-term resource protection.

### Establish a Sanctuary Visitor Center, Interpretive Signage, and Education Materials

Following the identification of appropriate locations and funding, NOAA may establish or work with existing organizations to create a Sanctuary Visitor Center, housing interpretive displays and printed materials about the Sanctuary and its resources, other marine resources and Native Hawaiian culture. Interpretive signs would be installed at boat ramps and various access/observation points to inform ocean users of the Sanctuary's resources and applicable regulations. The Visitor Center would also provide a facility for Sanctuary programs developed for interest groups and the general public.

### Identify/Establish Alternative Sources of Funding to Implement and Enhance the Sanctuary's Programs

Section 2306 of the HINMSA requires NOAA to "identify alternative sources of funding needed to fully implement the plan's provisions". The NMSA has several mechanisms for the Sanctuary to fulfill this requirement, including seeking cooperative agreements, donations and acquisitions, and working with nonprofit organizations to solicit donations. The Sanctuary will

work with the community to explore the feasibility of enhancing revenues through voluntary measures.

### Identify Additional Marine Resources and Ecosystems for Possible Inclusion in the Sanctuary

After the implementation of the final management plan, NOAA anticipates initiating the public process of identifying additional marine resources and ecosystems for possible inclusion in the Sanctuary through a focused initiative as described in Part C(4) of this Management Plan. This process would allow substantial public, State, and county agency input to help the Sanctuary assess whether other resources should be included in the Sanctuary.

### Five-Year Review of Management Plan

Not more than five years after the final management plan and regulations become effective, NOAA, in consultation with the Governor, and with the assistance of the SAC, will evaluate the progress made toward implementing the Sanctuary management plan, regulations, and goals. The results of this evaluation will be used by NOAA, in consultation with the Governor, to determine whether changes to the management plan and/or regulations are necessary, and to revise the management plan and/or regulations accordingly. Changes in the terms of the designation document require preparation of an environmental impact statement and Governor approval.

## **B. SANCTUARY BOUNDARY**

The boundary of the Hawaiian Islands Humpback Whale National Marine Sanctuary consists of the submerged lands and waters off the coast of the Hawaiian Islands seaward from the shoreline, cutting across the mouths of all rivers and streams --

- (1) to the 100-fathom (183 meter) isobath adjoining the islands of Maui, Molokai, and Lanai, including Penguin Bank, but excluding the area within three nautical miles of the upper reaches of the wash of the waves on the shore of Kahoolawe Island;
- (2) to the deep water area of Pailolo Channel from Cape Halawa, Molokai, to Nakalele Point, Maui, and southward;
- (3) to the 100-fathom isobath around the Island of Hawaii;
- (4) to the 100-fathom isobath from Kailiu Point eastward to Makahuena Point, Kauai; and
- (5) to the 100-fathom isobath from Puaena Point eastward to Mahie Point and from the Ala Wai Canal eastward to Makapuu Point, Oahu.

Excluded from the Sanctuary boundary are the following commercial ports and small boat harbors:

<u>Maui</u>	<u>Oahu</u>	<u>Lanai</u>
Kahului Harbor	Ala Wai Small Boat Basin	Kaunapali Harbor
Lahaina Boat Harbor		Manele Harbor
Maalaea Boat Harbor	<u>Hawaii (Big Island)</u>	
	Hilo Bay Harbor	<u>Molokai</u>
<u>Kauai</u>	Honokohau Boat Harbor	Hale o Lono Harbor
Hanalei Bay	Keauhou Bay	Kaunakakai Harbor
Nawiliwili Harbor	Kawaihae Boat Harbor and Small Boat Basin	

The waters around the island of Kahoolawe are not included in the Sanctuary at this time. NOAA has and will continue to work closely with the Kahoolawe Islands Reserve Commission, the State of Hawaii, and the Navy to assess whether Kahoolawe should be included in the Sanctuary at a later date.

The establishment of the Sanctuary in no way conveys, or intends to convey, to NOAA any title or ownership of Hawaii's submerged lands. These lands, including those known as ceded lands, continue to be held in trust by the State of Hawaii. The Sanctuary will exist as a co-steward of the Sanctuary and its resources. Should the status of the submerged lands change at some time in the future (i.e., lands are conveyed to a sovereign Hawaiian nation), the Sanctuary will work with the appropriate entities to redefine its role if necessary.

## C. SANCTUARY RESOURCES

### 1. Humpback Whale

The HINMSA designated the Sanctuary for the primary purpose of protecting endangered humpback whales (*Megaptera novaeangliae*) and their habitat within the Hawaiian Islands marine environment. The Sanctuary will focus its management efforts to protect humpback whales in their Hawaiian habitat by supporting resource protection, research, long-term monitoring, education and interpretation programs and by supporting efforts to improve coordination among the management agencies, researchers, educators and various user groups.

### 2. Humpback Whale Habitat

The marine waters surrounding the Hawaiian Islands comprise only a portion of the overall habitat of the humpback whale (i.e., Alaskan feeding grounds, migration routes, etc.). But these waters are essential because they provide breeding, calving, nursing and resting areas for the majority of the endangered North Pacific humpback whale population. Thus, Hawaii is one of the most important humpback whale breeding grounds in the world. Most humpbacks can be found in the warm, protected nearshore waters less than 100 fathoms (600 feet) deep (NMFS 1991, Nitta and Naughton 1989). Cows with calves tend to be distributed in more nearshore waters on the leeward sides of islands, often within the 10-30 fathom isobath (60-180 feet) depth (NMFS 1991). SRD, in consultation with NMFS, has defined humpback whale habitat, for purposes of Sanctuary management, as:

*"those areas in the waters around Hawaii that provide space for individual and population growth and normal behavior of humpback whales, and include sites used for reproductive activities, including breeding, calving and nursing."*

### 3. Other Resources of National Significance

The HINMSA established the Sanctuary to focus attention on humpback whales and their habitat as its primary resources. Initial efforts of the Sanctuary will be directed at comprehensive and coordinated protection of humpback whales and their habitat. Section 2304(b)(4) of the Act also requires NOAA to provide for "the identification of marine resources and ecosystems of national significance for *possible inclusion* in the sanctuary." (Emphasis added). Further, Section 2306(a)(6) of the Act states that the Sanctuary Management Plan will "promote education among users of the Sanctuary and the general public about conservation of humpback whales, their habitat, and other marine resources." (Emphasis added).

Within five years after the Final Management Plan has been approved, a process will be put in place that will allow widespread public participation in the identification of other marine resources or ecosystems of national significance. These identified resources may or may not be included in the Sanctuary management regime depending on their national significance, need to supplement existing management authorities to provide and ensure coordinated and comprehensive conservation and management (i.e., through the collaborative management process envisioned by the Sanctuary), and degree of public and State support.



The process to identify other resources and ecosystems will be conducted over a number of years (time frame undetermined) after the final management plan is approved. The initial priority will be to review other resources already identified in public scoping meetings held in March 1993, public meetings held in March 1994, public hearings and comments on the Draft EIS/MP, and recommendations from the SAC. Additional resources may be identified through nominations, review and evaluation, and further impact analysis. The assessment of other resources for possible inclusion into the Sanctuary will be conducted by the Sanctuary Manager in consultation with the SAC and with full public participation.

a. Process to Include Other Resources

SRD developed the following process to allow widespread public participation in the identification of other marine resources for possible inclusion in the Sanctuary. First, the public will be notified of the nomination process. Second, the resources/ecosystems would be identified. Third, the identified resources/ecosystems would be evaluated for national significance and potential management gaps. Fourth, results of evaluations would be given to the Sanctuary Manager for consideration. And fifth, if resources are determined to be candidates for inclusion, public notice and opportunity for comment will be given before any change relating to other resources or management thereof is incorporated.

**Step 1. Notification:** Three months prior to the start period, the Sanctuary will publish a *Federal Register* Notice, print notices in local newspapers, and use other means to inform the public of the nomination process and to call for nominations (along with criteria and format) for the identification of other marine resources and ecosystems for possible inclusion in the Sanctuary. The Notice will summarize public comments and other pertinent information received up to that point, and provide a standard format for the public to submit recommendations for nominating other resources for possible inclusion into the Sanctuary.

**Step 2. Nomination:** The period of consideration will be for a specified time period (i.e., 3 to 6 months), at which time the nomination period will close.

**Step 3. Evaluation:** During this period, a technical working group of the SAC (see "Administration" section) will review the nominations based on standards identified in the Sanctuary Management Plan, research the status of these resources, and review all regulations and management regimes that apply to these resources. The SAC will provide the Sanctuary Manager its recommendations on the nominations.

**Step 4. Recommendation to Sanctuary Manager:** All proposals, along with their justification, will be integrated and developed for further review, analysis, and evaluation by the Sanctuary Manager (in consultation with NOAA) and the SAC in accordance with an agreed upon review process (see sample process listed below). A consolidated proposal will then be distributed for public review, discussion, and identification of concerns and support.

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**Resource Review/Evaluation Process**

A number of ecological, historical, and cultural resources have been identified as possible Hawaii Sanctuary resources, in addition to humpback whales and their habitat. In examining these resources and their uses, the program will apply the sanctuary designation standards described in NMSA § 303(a), consistent with the HINMSA. The following approach will be used by the Sanctuary Manager and the SAC to assess whether other resources should qualify as sanctuary resources and thus be included in the Sanctuary management regime.

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1. Is the resource of special national significance? See Appendix B [NMSA §303(a)(2)(A) and §303(b)(1)]. If not, go to step three.
- 2a. Are there *management gaps* which the sanctuary program can fill?  
  
*Management gaps* for the purposes of this review will include any regulatory, administrative, or management deficiency. The review will specify whether the gaps result from shortfalls in regulatory authority or jurisdiction or from agency implementation constraints. Constraints may include, but are not limited to, limitations in non-regulatory management efforts such as education, research, monitoring, enforcement, and staffing. See Appendix B [NMSA §303(a)(2)(B),(D)]. If not, go to step 3.
- 2b. What are the management gaps and how can they be filled (research, monitoring, education, enforcement, regulation, staffing, etc.)? See Appendix B [NMSA § 303(a)(2)(B),(D)]
- 2c. Will the designation of the resource as a Sanctuary resource facilitate the objectives of the NMSA and the policies and purposes of the HINMSA? See Appendixes B and C [NMSA §303(a)(1); HINMSA §2304(b)(3)].
- 3a. Should there be further study of the resource and its management because the resource may be of special national significance and suitable for Sanctuary management? If not, no further action.
- 3b. What other study is necessary to determine the significance of the resource and the need for additional management measures? Compile a list of research needs based upon this review.

**Step 5. Public Review:** Further public and agency review will be held prior to any action being taken to include additional resources, along with the proper resource protection and management regime, research, and education needs, etc. If necessary, a supplement to the Final EIS/MP will be prepared and distributed prior to that review. NOAA will work with the State of Hawaii and Federal agencies to assure that such additions are coordinated with the goals of these other agencies.

## D. RESOURCE PROTECTION PROGRAM

### 1. Program Description

The designation of the HIHWNMS focuses attention on the value of and need for protection of the central North Pacific population of humpback whales and their wintering habitat. The resource protection program complements existing non-regulatory and regulatory mechanisms to protect humpback whales and their habitat. To ensure that these resources and qualities are protected, the Sanctuary resource protection program includes: (1) goals and objectives; (2) education and outreach; (3) coordination of permit review and consultations; (4) Sanctuary regulations; (5) enforcement and surveillance; and (6) research and long-term monitoring. The Sanctuary recognizes that the people of Hawaii extensively depend upon the marine environment for commerce, recreation and culture, and will work to facilitate public and private uses of the Sanctuary (including Native Hawaiian uses) consistent with the primary objective of resource protection.

## 2. Goals and Objectives

The highest management priority for the HIHWNMS is the long-term protection of humpback whales, and their habitat within the Sanctuary's boundary. Approximately 65 percent of the Congressionally-designated Sanctuary lies within the waters of the State of Hawaii, and therefore many of the activities affecting the Sanctuary's resources and qualities are presently governed by existing Federal and State authorities. The Sanctuary will work closely with these existing agencies to ensure coordinated and more efficient management of humpback whales and their habitat.

Two specific plans relate directly to the protection of the humpback whale and its habitat. NMFS developed a *Final Recovery Plan for the Humpback Whale* in 1991 (NMFS Recovery Plan) which summarizes current information on humpback whales, identifies problems that may interfere with their recovery, and recommends research or management actions to restore and maintain this endangered species. The major objectives of the plan are to:

- Maintain and enhance habitat;
- identify and reduce human-related mortality, injury and disturbance;
- measure and monitor key population parameters to determine if recommended actions are successful; and
- improve administration and coordination of the overall recovery effort for this species.

In mid-1990 the State of Hawaii organized a planning team to identify critical issues, prepare technical papers and suggest policies and implementing actions to improve coastal and ocean resource management in the State (Hawaii Ocean and Management Resources Council, 1991). Extensive public input during the creation of the Hawaii Ocean Resources Management Plan (ORMP) revealed several critical concerns about the existing sector-specific management of Hawaii's ocean and coasts by Federal, State and County agencies, including:

- The current system of managing ocean and coastal resources is diffused among State and County planning, management and regulatory activities, poorly coordinated and inadequate.
- Existing mechanisms and procedures for resolving ocean and coastal user and regulatory conflicts are inadequate.
- Existing enforcement systems for ocean use laws and regulations are inadequate.
- Public participation in and awareness of ocean and coastal resources, as well as their management, are lacking.
- Current ocean and coastal management programs are reactive and issue-driven rather than anticipatory.

The Hawaii ORMP identified priority recommendations to address the above concerns. These include:

- Implement a regional planning approach;
- Improve the information base;
- Establish carrying capacities;
- Develop conflict resolution procedures;
- Enforce ocean use laws and regulations;
- Improve public participation; and
- Anticipate critical issues.

The Hawaii ORMP also contains sector-specific recommendations that detail major objectives and policies for implementation by various State agencies.

The goals and objectives of the Hawaii Sanctuary's Resource Protection Program were developed to complement and coordinate existing management and regulatory efforts, fill gaps, enhance public participation and awareness, and to address some of the identified problems; objectives and policies contained within the Hawaii ORMP, the NMFS Recovery Plan, and other programs, such as point and non-point source pollution control initiatives, as they relate to the protection of the humpback whale's Hawaiian habitat. The Hawaii Sanctuary seeks to complement existing management regimes without adding or increasing the current regulatory and administrative requirements.

**Sanctuary Goals:** The NMSA, HINMSA, and the NMFS Recovery Plan establish the following resource protection goals, including to:

- protect and maintain humpback whales and their habitat;
- provide authority for comprehensive and coordinated conservation and management of the Sanctuary, and activities affecting Sanctuary resources in a manner which complements existing regulatory authorities;
- identify and reduce human related mortality, injury, and disturbance, and manage such human uses of the Sanctuary consistent with the HINMSA and the NMSA;
- set forth the allocation of Federal and State enforcement responsibilities, as jointly agreed by the Secretary and the State of Hawaii;
- ensure coordination, cooperation and improved administration between Sanctuary managers and other Federal, State and county authorities with jurisdiction within or adjacent to the Sanctuary;
- support, promote and coordinate long-term monitoring and scientific research on Sanctuary resources;
- enhance public awareness, understanding, appreciation, and wise use of the Sanctuary; and
- facilitate all public and private uses of the Sanctuary (including uses of Hawaiian natives customarily and traditionally exercised for subsistence, cultural, and religious purposes) consistent with the primary objective of the protection of humpback whales and their habitat.

**Sanctuary Objectives:** To fulfill the mandate of providing for the long-term protection of the central North Pacific population of humpback whales and their habitat, the Hawaii Sanctuary will rely upon the following objectives and strategies

**Objective 1:** Coordinate and complement policies and procedures among the various government agencies sharing regulatory responsibility for protection and management of humpback whales and their habitat (see part 4, below);

**Strategy 1.1:** Develop formal and informal coordination mechanisms with appropriate Federal and State resource management authorities to implement resource protection strategies and to ensure that the protection of the humpback whale and its habitat are considered within the existing resource management framework.

**Strategy 1.2:** Incorporate existing Federal and State regulations that protect humpback whales and their habitat into the Sanctuary regulatory regime (see part 3 below and Appendix K.).

**Objective 2:** Complement coordination among appropriate Federal, State and county authorities to enhance enforcement of existing laws and regulations that fulfill Sanctuary goals (see part 5 below);

**Strategy 2.1:** The Sanctuary Manager will work closely with NMFS-Office of Enforcement (NMFS-OE) to coordinate the enforcement activities of existing Federal and State authorities in the Sanctuary.

**Objective 3:** Encourage participation by interested agencies and the public in the development of procedures to address specific resource protection and management concerns (e.g., research, monitoring, enforcement, education, and emergency-response programs) (also see Research, Education Sections of the Management Plan);

**Strategy 3.1:** Facilitate efforts by the SAC to advise the Sanctuary manager and NOAA on Sanctuary policies and program priorities. Encourage the SAC to form working groups to address research, education and other resource protection issues.

**Strategy 3.2:** Convene workshops and meetings between Sanctuary staff, the SAC, other Federal, State and county agencies and the public to assist in identifying, developing and implementing action plans and assigning responsibilities for education, research and monitoring, enforcement and other resource protection strategies.

**Objective 4:** Promote public awareness of, and voluntary compliance with, Sanctuary regulations and objectives and other authorities, through education and interpretive programs stressing resource sensitivity and wise use (see Education and Interpretation Section of Management Plan);

**Objective 5:** Utilize the research and monitoring results from existing management agencies and researchers to develop effective resource protection strategies and to improve management decision making (See Research & Long-Term Monitoring Section of Management Plan).

### 3. Sanctuary Regulations

Hawaii's humpback whales may be directly affected by vessel approaches or collisions, and noise from boats, aircraft, nearshore or in-water construction or other acoustic generating activities. Indirect impacts may result from the degradation of whale habitat. Sources of habitat degradation include point and non-point source pollution and the physical alteration or disturbance of the seafloor (which can re-suspend contaminated sediments, alter the depth, modify submerged characteristics which provide protection from open seas, change the acoustic properties of a site, and displace whales from preferred nearshore areas). For management purposes, the Hawaii Sanctuary will focus on present and potential activities that may adversely affect the whales directly (harassment and disturbance) and those factors that may impact water quality and/or modify the seafloor -- the two major components of the whale's habitat.

Because there are many existing Federal and State laws and regulations, and conservation efforts by the public, that directly and/or indirectly protect humpback whales and their habitat, the Hawaii Sanctuary will supplement these authorities to the maximum extent practicable by filling gaps and providing a safety net of regulatory protection. The following sections detail how the Hawaii Sanctuary will work within existing regulatory regimes.

#### a. Humpback Whale Protection

SRD is proposing Sanctuary regulations that supplement existing regulatory regimes to protect humpback whales. The proposed Sanctuary regulations essentially incorporate the NMFS humpback whale approach regulations for Hawaii and regulations that prohibit taking or possessing a humpback whale or parts thereof. Thus, violations of the terms or conditions of these NMFS whale approach regulations would also constitute a violation of the Sanctuary regulations. The Sanctuary prohibitions would not apply if the activity is authorized under the

Marine Mammal Protection Act (MMPA) or the Endangered Species Act (ESA). Specifically, the Sanctuary regulations include the following prohibitions:

- Approaching, or causing a vessel or other object to approach, within the Sanctuary, by any means, within 100 yards of any humpback whale except as authorized under the MMPA, as amended, 16 U.S.C. 1361 et seq., and the ESA, as amended, 16 U.S.C. 1531 et seq.;
- Operating any aircraft above the Sanctuary within 1,000 feet of any humpback whale except when in any designated flight corridor for takeoff or landing from an airport or runway or as authorized under the MMPA and the ESA;
- Taking any humpback whale in the Sanctuary except as authorized under the MMPA and the ESA;
- Possessing within the Sanctuary (regardless of where taken) any living or dead humpback whale or part thereof taken in violation of the MMPA or the ESA;

The State of Hawaii also regulates the operation of commercial and recreational thrillcraft, water sledding, parasailing vessels, and high-speed motorcraft. Commercial thrillcraft activities are limited to Ocean Recreation Management Areas (ORMAs) and commercial operators must obtain commercial operating area use permits from the Department of Land and Natural Resource (DLNR)-Division of Boating and Ocean Recreation to conduct these activities. Recreational thrillcraft operators can operate outside of certain non-designated ORMAs (seaward 500 feet from the shoreline to the outer fringing reef, whichever is greater, and two miles off Kauai, Oahu, Maui and Hawaii). However, commercial and recreational thrillcraft operations are prohibited in most designated ORMA areas, with some exceptions, including the Humpback Whale Protected Waters Area on the west and south coast of Maui, between December 15 and May 15 for the protection of the humpback whales (HAR, Title 13, Chapter 256-112). These regulations are an important step by the State of Hawaii to protect the humpback whale while in Hawaiian waters. The Sanctuary will work with the State, counties and various interests, to assess the long-term effectiveness of these regulations in protecting the whale from certain vessel traffic threats.

#### b. Humpback Whale Habitat Protection

Degradation of water quality and the physical alteration of the submerged lands within the Sanctuary are concerns regarding the humpback whales' habitat. Scientific evidence generally relates degradation of water quality or alteration of the physical habitat as having potentially adverse impacts on humpback whales, although specific cause-effect relationships have been difficult to establish. The Sanctuary will begin to target research efforts to more clearly characterize the types of activities and degree to which they may impact individual whales and populations in the short- and long-term. In addition, the Sanctuary will work closely to supplement and complement existing Federal and State regulations that address water quality and alteration of the seabed activities that are related to humpback whales and their habitat. To supplement enforcement and enhance compliance with such existing regulations, the Sanctuary regulations include the following prohibitions:

- Discharging or depositing any material or other matter in the Sanctuary; altering the seabed of the Sanctuary; or discharging or depositing, from beyond the boundary of the Sanctuary, any material or other matter that subsequently enters the Sanctuary and injures a humpback whale or humpback whale habitat, provided that:

such activity requires a Federal or State permit, license, lease or other authorization, and is conducted:

- (i) without such permit, license, lease or other authorization; or
- (ii) not in compliance with the terms and conditions of such permit, license, lease, or other authorization.

This proposed Sanctuary regulation is based on an analysis of existing regulations and extensive consultations with other government agencies and the public. NOAA concluded that, at this time, there are adequate regulations on the books that generally protect water quality and the physical submerged lands in the Sanctuary. However, NOAA also found that the Sanctuary could help supplement the enforcement of, and improve compliance with, these regulations which will not only increase protection for humpback whales and their habitat, but also improve the marine environment generally. This Sanctuary regulation recognizes and relies on the authorities and permit processes that govern water quality and seabed integrity while bringing the Sanctuary's perspective and expertise to the process.

The proposed habitat regulation provides enhanced resource protection for the whales' habitat since violations of valid Federal or State permits, leases, licenses, or specific authorizations also constitute a violation of Sanctuary regulations. Any authorized discharge or alteration of the seabed activities will not be a violation of Sanctuary regulations. The proposed regulatory regime to protect humpback whale habitat provides a backdrop or safety net to existing authorities to ensure compliance with valid permits, leases, and authorizations, and supplements the enforcement of permit violations and unlawful discharges or alteration of the seabed activities.

#### c. Future Regulations

NOAA cannot make the guarantee that future Sanctuary regulations will never be necessary. It is possible that in the future resource managers may identify a specific type of activity that could negatively impact Sanctuary resources or create conflicts among other Sanctuary users. Further, if in the future other marine resources and ecosystems are included in the Sanctuary, additional regulations may be necessary to manage and protect such resources. While non-regulatory options would generally be pursued first, regulation is one type of management tool that NOAA may choose to consider in order to protect Sanctuary resources. Prior to issuing a new regulation, NOAA must first identify and support that there is a need for the new regulation (e.g., that a Sanctuary resource is being, or could be negatively affected by some activity or that an activity is creating a conflict among Sanctuary users). NOAA would work with other Federal and State resource management agencies, the research community, and affected user groups to collect all relevant and available information and scientific data that will be used to more clearly define the problem and identify potential solutions. NOAA would also seek advice and recommendations from the SAC and other resource management agencies prior to initiating any rulemaking.

If after coordinating with existing agencies and the SAC NOAA determines to propose a new regulation, NOAA is required to, at a minimum, follow the procedures of the Administrative Procedure Act, requiring that adequate public notice and opportunity for public comment be given for any new regulation. Further, if NOAA proposed a regulation outside the scope of regulations listed in the Sanctuary Designation Document, NOAA would be required to go through the designation process, including public review and comment, at least one public hearing, preparation of a Supplemental EIS, and gubernatorial review and non-objection. If the Governor objects, the regulation would not take effect in State waters. If NOAA proposed to change an existing regulation, NOAA would provide for public review and comment and, although not required to do so, gubernatorial review and non-objection.

#### 4. Enforcement and Surveillance

An essential feature of the resource protection program is an effective enforcement program which includes education. NOAA's primary enforcement objective in the Sanctuary is to achieve resource protection by gaining voluntary compliance with the Sanctuary regulations and other authorities that apply within the Hawaii Sanctuary. The Sanctuary anticipates a State-Federal cooperative enforcement system involving the State of Hawaii DLNR and Department of Health (DOH), USCG, and NMFS. The Sanctuary is also proposing to add a Sanctuary regulation to ensure that enforcement investigations proceed with minimal obstruction. The Sanctuary regulation's prohibit:

- Interfering with, obstructing, delaying or preventing an investigation, search, seizure or disposition of seized property in connection with enforcement of either of the Acts or any regulations issued under either of the Acts.

##### a. Enforcement Philosophy

The law enforcement program is an essential component of resource protection within the Sanctuary. A goal of Sanctuary enforcement is to primarily prevent adverse resource impacts. The Sanctuary's enforcement program will focus on "interpretive enforcement", emphasizing outreach and education activities for Sanctuary users in order to prevent the occurrence of violations. This style of enforcement seeks voluntary compliance primarily through the education of users. Interpretive law enforcement emphasizes informing the public through educational messages and literature about responsible behavior before they impact Sanctuary resources. This objective will be met by putting into place enforcement personnel on-site to carry-out education/interpretation activities; to deter violations of Sanctuary regulations; and to provide quick response to any violations that do occur. In addition, NOAA will work to expand the existing deputization agreement (see below) to bring Sanctuary concerns into this enforcement framework.

While interpretive enforcement is the primary tool of the enforcement program, preventative enforcement is also necessary. Preventative enforcement is best achieved by maintaining sufficient patrol presence within the Sanctuary to deter violations and by preventing, through education, inadvertent violations of the law. Successful enforcement relies on frequent water or land-based patrols. Water patrols will ensure that users of the Sanctuary resources are familiar with the regulations; deter willful or inadvertent violations of the law; and provide quick response to violations and/or emergencies.

##### b. Integrating Existing Enforcement Efforts

Across the nation, Federal, State and county/local agencies are increasingly entering into cooperative relationships to more efficiently carry out management and enforcement responsibilities. Federal, State and County laws provide government agencies with a variety of tools to protect marine resources. In so doing, these laws strengthen law enforcement capabilities by allowing agencies to build and rely upon each other's experience and physical resources. In addition, local residents are helping by detecting and reporting various violations including harassment incidences and discharge violations.

The success of Sanctuary enforcement largely depends upon how well the enforcement entities are coordinated. Because of limited resources at the Federal and State levels, current enforcement assets must be targeted and used in an efficient and directed effort to achieve compliance with existing and proposed regulations. Consequently, the coordination of enforcement assets will be an integral component of continuous resource management. To achieve this coordination objective, the Sanctuary may seek to develop an agreement under which Federal Sanctuary enforcement officers are cross-deputized to enforce existing State regulations, and State



enforcement officers are deputized to enforce Sanctuary regulations. Such a cross-deputization agreement already exists between NMFS-OE; USCG; and the Hawaii DLNR-Division of Conservation and Resources Enforcement, and State Marine Patrol to enforce Magnuson Federal Fishery regulations, MMPA, and ESA regulations. However, the recent elimination of the State Marine Patrol necessitates a re-examination of state marine enforcement entities and responsibilities. The Sanctuary will work closely with NMFS-OE to revise such an agreement and include the enforcement of Sanctuary regulations. Cross-deputization would foster a strong working relationship between NOAA and the State of Hawaii, as well as assist in increasing abilities to attain mutual goals of enhanced resource protection for the humpback whales and their habitat.

There is an existing memorandum of agreement between NMFS and the National Ocean Service related to enforcement within the NMSP, which:

- provides a mechanism to address the Sanctuary's enforcement needs;
- contributes to the attainment of NOAA's strategic goals and objectives;
- achieves greater economy by eliminating duplication of effort;
- enhances the availability and effective use of necessary enforcement resources; and
- provides a mechanism for Office of Ocean and Coastal Resources Management (OCRM) and NMFS-OE to systematically and routinely develop enforcement programs for all marine sanctuaries.

Thus, NMFS-OE will remain the primary enforcement entity responsible for enforcing the humpback whale approach regulations in the Sanctuary. NMFS-OE will coordinate enforcement activities in the Sanctuary with the Sanctuary Manager, and with other State and Federal enforcement agencies. NMFS-OE, in close cooperation with the Sanctuary Manager, will continue to investigate potential approach violations, prepare enforcement reports, and coordinate with NOAA's Office of General Counsel (NOAA-GC) to determine whether to pursue potential violations.

The enforcement of Sanctuary discharge and alteration of the seabed regulations will require more close coordination with other agencies, since a violation of this Sanctuary regulation is dependent upon whether there is a violation of an existing discharge or alteration of the seabed regulation of a non-NOAA agency. As such, the Sanctuary Manager will work closely with NMFS-OE and NOAA-GC to coordinate enforcement activities with DOH and DLNR violations of discharge and alteration of the seabed permits and authorizations that also violate Sanctuary regulations. NOAA will rely upon the relevant permit/authorization granting agency to determine if their permit or authorization has been violated. Sanctuary enforcement actions from NOAA may only take place after such determination has been made. NOAA will develop an MOU with the State of Hawaii concerning the coordination of enforcement activities in the Sanctuary.

In general, existing MOUs establish a framework that allows for Sanctuary Program management of enforcement activities in national marine sanctuaries. Under these agreements, NMFS-OE is required to develop, for SRD's approval, an annual enforcement plan for each national marine sanctuary, which identifies enforcement priorities.

#### c. Conduct of the Enforcement Program

Sanctuary enforcement operations are a major component of Sanctuary management. A NMFS Special Agent (Sanctuary Agent) will serve as coordinator of the operational enforcement program on behalf of, and working in close consultation with, the Sanctuary Manager. The Sanctuary Agent is provided through an existing MOU between NOAA's Assistant Administrator for Fisheries and the Assistant Administrator for Ocean Services and Coastal Zone Management. The Sanctuary agent will coordinate operational enforcement with all participating agencies through

their respective chains of command. Enforcement will be conducted in accordance with enforcement operational plans, to be developed jointly between NMFS-OE and the Sanctuary Manager. Enforcement operating plans, subject to revision as necessary, will include enforcement priorities, patrol schedules, procedures for documenting violations, boarding procedures, information needs, and other instructions to conduct day-to-day enforcement.

Through provisions of the Sanctuary's enforcement plan, the Sanctuary Agent will coordinate the actions of this multi-agency group, and ensure all participants receive appropriate training, equipment and support to conduct enforcement operations. The Sanctuary Agent will also assist in the development and delivery of Sanctuary education and outreach products designed for Sanctuary users and constituents, and intended to improve voluntary compliance with Sanctuary regulations. These activities may include education/interpretive programs for the commercial whale watch industry, commercial and recreational fishing industries, hotel and tourism industries, conservation organizations, civic and business organizations, and public school systems.

As part of the continuous management process, an enforcement review program will be established for the Sanctuary that involves the SAC. This program will ensure that the management issues are being addressed by all agencies involved in Sanctuary enforcement, and that the proper training, background and resource protection information is reaching the enforcement staff. Every effort will be made to provide the enforcement officers with information so they become familiar with the type of humpback whale research that occurs in the area.

#### **d. Enforcement Program Goals and Objectives**

**Sanctuary Goals:** The primary goal of enforcement in the NMSP is to protect Sanctuary resources by achieving voluntary compliance with the applicable authorities. Effective enforcement of relevant Federal and State authorities that protect the humpback whale and its habitat within the Sanctuary is necessary. The principle goals associated with Sanctuary enforcement include:

- Promoting public stewardship of the marine resources through interpretive enforcement efforts; and
- increasing the public's understanding of why it is important to comply with Sanctuary regulations; and
- achieving voluntary compliance with applicable Federal, State and County authorities.

**Sanctuary Objectives:** To achieve these goals, the Sanctuary manager will work with NMFS-OE and applicable Federal and State enforcement authorities, and the public to accomplish the following objectives:

#### **Objective 1: Establish Cooperative Agreements and Efforts**

**Strategy 1.1:** Develop partnerships with other Federal and State enforcement agencies in order to provide a uniform and coordinated enforcement presence throughout the Sanctuary.

**Strategy 1.2:** Maintain an active relationship with Federal and State enforcement agencies to identify areas of mutual concern and to develop cooperative responses to enforcement issues.

**Strategy 1.3:** Enter, if necessary, into memoranda of understanding, cooperative enforcement agreements, and joint operation plans with other enforcement agencies as appropriate.

**Strategy 1.4:** Facilitate communication among enforcement assets to avoid duplication of effort.

**Strategy 1.5:** Promote cooperation, standardization of gear, and coordination of limited resources such as vessels, radios, radio frequencies and training.

**Strategy 1.6:** Promote training and cross deputization among enforcement agencies.

**Objective 2:** Facilitate Community Involvement

**Strategy 2.1:** Encourage public involvement by encouraging site-specific interpretive patrols.

**Strategy 2.2:** Involve USCG, power squadrons, charter boat, whalewatching and fishing organizations in promoting compliance with Sanctuary regulations.

**Strategy 2.3:** Maintain an active dialogue with citizen groups seeking to enhance compliance with Sanctuary regulations.

**Strategy 2.4:** Conduct community outreach programs to encourage compliance with Sanctuary regulations and citizen involvement in reporting violations.

**Strategy 2.5:** Involve the SAC and interested public in assisting develop annual enforcement plans.

**Strategy 2.6:** Establish an Enforcement/Regulation SAC Sub-Working Group consisting of relevant regional law enforcement organizations and interested Sanctuary user groups.

**Objective 3:** Develop Education and Awareness Programs

**Strategy 3.1:** Emphasize education as a tool to achieve compliance with regulations.

**Strategy 3.2:** Promote stewardship of the general public through specific outreach programs regarding voluntary compliance with Sanctuary regulations.

**Strategy 3.3:** Train user groups about regulations and procedures for reporting violations (witness statement forms).

**Strategy 3.4:** Identify major user groups and develop and disseminate specific materials to these groups through meetings and workshops.

**Objective 4:** Coordinate Operations

**Strategy 4.1:** Maintain an investigative capability to ensure quick response to unlawful acts.

**Strategy 4.2:** Develop and maintain the capability to effectively respond to violations of Sanctuary regulations and to emergencies.

**Strategy 4.3:** Develop enforcement operation plans that identify specific enforcement strategies and priorities and outline the best means of achieving them.

**Strategy 4.4:** Develop regulations for the Hawaii Sanctuary that are comprehensible to the general public and emphasize ease of enforcement.

## 5. Agency Coordination

### a. Permit Review

The Hawaii Sanctuary is unique among the other national marine sanctuaries when it comes to regulations and permitting. As proposed, the Sanctuary does not contain additional substantive Sanctuary restrictions or prohibitions, nor contain separate requirements for Sanctuary permits, certifications, or authorizations. SRD, in consultation with the State of Hawaii and other Federal agencies, and after reviewing the scientific literature, has determined that the existing Federal and State regulations are presently sufficient to provide protection for humpback whales and their habitat; the only resources of the Sanctuary proposed at this time. As such, SRD is seeking only to supplement existing Federal and State regulations that pertain, directly or indirectly, to the protection of the humpback whale and its Sanctuary habitat. The Sanctuary will work within the permit review processes of these authorities that are already in place to ensure that humpback whales and their Sanctuary habitat are considered. The Sanctuary will also rely upon the collective experience of the Hawaii Sanctuary Advisory Council to provide advice and recommendations to the Sanctuary Manager and NOAA on issues pertaining to Sanctuary management.

#### i. ESA and MMPA Permit Coordination

In August 1995, NOAA's National Ocean Service and NMFS signed a MOU concerning permits and consultations for activities that affect the HIHWNMS (Appendix E). This agreement sets forth specific procedures by which NMFS-Office of Protected Resources and SRD will cooperate and coordinate on the issuance of permits and other authorizations, and with respect to consultations under the ESA, MMPA, HINMSA, and the NMSA, for activities that may affect humpback whales and their Sanctuary habitat. This MOU was developed to reduce agency duplication and establish a more coordinated NOAA response to activities that could adversely impact humpback whales or their Sanctuary habitat. NMFS will remain the lead agency, and will work closely with the Sanctuary Manager to incorporate Sanctuary concerns into permits issued under the ESA and MMPA.

Most of the permits that will be subject to this MOU will likely concern research conducted within 100 yards of humpback whales in Sanctuary waters issued under the MMPA and ESA. The research permitting procedure will remain virtually unchanged, since the Sanctuary will, through the process described in the MOU, provide its concerns within the 30-day public comment period that NMFS is required to provide the public, thereby ensuring there is no added delay to action taken on the permit. Delays may only occur if the project was particularly controversial or if NMFS and SRD needed additional time to resolve differences concerning the permit. NOAA expects that there will be few instances where this will occur.

#### ii. Humpback Whale Habitat Permit Review

##### (a) NEPA and FWCA Coordination

The NMFS Pacific Islands Habitat Conservation Program (HCP) conducts National Environmental Policy Act (NEPA) and Fish and Wildlife Coordination Act (FWCA) reviews of Federal environmental assessments, environmental impact statements, and applications for permits under the Clean Water Act (CWA), and the Rivers and Harbors Act (RHA). These reviews include, but are not limited to, CWA Section 404 permits and RHA Section 10 permits issued by the Corps.

SRD and NMFS are developing an MOU concerning the coordination of management activities of NMFS and SRD in the Sanctuary. In addition to other issues, this MOU addresses the coordination of NOAA's NEPA and FWCA reviews. NMFS-SWR will remain the NOAA lead

for FWCA/NEPA reviews in Hawaii. The NMFS Pacific Islands Environmental Coordinator will notify the Sanctuary Manager (and vice versa), of all FWCA/NEPA reviews for activities that may affect Sanctuary resources and include the Sanctuary in the review process. This consolidation ensures that Sanctuary concerns are coordinated with NMFS, and that they are addressed within existing NEPA and FWCA review processes. The Sanctuary's regulatory structure was designed so that the Sanctuary works within the existing review structures, and as such, it will not have authority to deny discharge or alteration of the seabed activities under CWA Section 404 or RHA Section 10 or other permits issued by other Federal or State agencies.

(b) State of Hawaii Discharge and Alteration of the Seabed Permits

To facilitate coordination and to ensure that comprehensive and coordinated protection of humpback whales and their habitat is effectively achieved using existing authorities, SRD has developed a MOU with DOH and DLNR. The MOU establishes mutually agreeable procedures for coordinated review of activities requiring permits from the State for proposed activities that are subject to Sanctuary regulations (i.e., discharge and alteration of the seabed activities), and that may impact humpback whales or their habitat. In addition, the MOU calls for the agencies to work together to monitor permittee compliance with the terms and conditions of State permits for such activities, and to coordinate the enforcement of violations of Sanctuary regulations and corresponding State regulations or permits.

The Sanctuary will focus its review on those discharge and alteration of the seabed activities that have the potential of adversely impacting humpback whales or their habitat, including: National Pollutant Discharge Elimination System (NPDES), Water Quality Certifications, other general permits, and Conservation District Use Applications. The Sanctuary regulation was developed to supplement existing Federal and State authorities, and as such, does not have authority to deny such permits. The Sanctuary will work closely within these DOH and DLNR permitting processes to ensure that humpback whales and their habitat are given due consideration.

b. Sanctuary Consultation Procedures

Section 304(d) of the NMSA, 16 U.S.C. §1434(d) requires that Federal agency actions internal or external to a national marine Sanctuary, including private activities authorized by licenses, leases, or permits, that are likely to destroy, cause the loss of, or injure any sanctuary resource are subject to consultation with the Secretary of Commerce (or designee). Federal agencies proposing such actions are required to provide the Sanctuary with a written statement describing the action and its potential effects on Sanctuary resources at the earliest time, but no later than 45 days before the final approval of the action. If the Secretary finds that a Federal agency action is likely to destroy, cause the loss of, or injure a Sanctuary resource, the Secretary (within 45 days of receipt of complete information on the proposed project) shall recommend reasonable and prudent alternatives, which may include conduct of the action elsewhere, which can be taken by the Federal agency implementing the agency action that will protect Sanctuary resources. The agency head who receives the Secretary's recommended alternatives shall promptly consult with the Secretary on the alternatives. If the agency head decides not to follow the alternatives, the agency shall provide the Secretary with a written statement explaining the reasons for that decision.

Under section 7 consultation procedures required by the ESA, NMFS routinely reviews and comments on environmental impact statements, proposed permits, or other authorizations for Federal projects (e.g., construction, dredging, sound generation) and Federally permitted activities which may affect humpback whales. As a result of section 7 consultation, NMFS may recommend specific measures to minimize impacts (e.g. changes to timing and/or location of action).

NOAA is committed to avoiding unnecessary duplication of existing consultation requirements under the NMSA and the ESA. The MOU between SRD and NMFS on coordinated permit reviews also addresses coordinated consultation for Federal actions. The MOU consolidates the ESA Section 7 as implemented by NMFS and the NMSA Section 304(d) consultation requirement as implemented by SRD for activities affecting Sanctuary resources in Hawaii (Appendix E). As a result, agencies that initiate ESA section 7 with NMFS for an activity that may impact humpback whales or their habitat, will also have initiated the NMSA section 304(d) consultation. NMFS will coordinate with the Sanctuary and issue one response that satisfies both section 7 and section 304(d) consultations. NMFS will work closely with SRD to ensure that Sanctuary concerns are addressed in the joint-consultation provision. After review and completion of the joint-consultation, NMFS will issue one NOAA response that fulfills both the ESA section 7 and the NMSA section 304(d) consultation requirements; thus eliminating the need for two separate consultations.

### c. Oil Spill and Hazardous Waste Contingency Planning

Both living and non-living resources of the Sanctuary are susceptible to natural and human-related changes. Because many of these changes are gradual in nature, they may only be detected or forecast through long-term monitoring of environmental and biological indicators. However, certain changes in conditions which may result from specific, dramatic events (e.g., oil or other toxins introduced into the environment through an accidental vessel collision), pose serious threats to both Sanctuary resources and to public health and safety.

#### i. Existing Capabilities

Section 4202 of the Oil Pollution Act of 1990 (OPA 90; 33 U.S.C. § 2701 *et seq.*) amended Subsection (j) of Section 311 of the Federal Water Pollution Control Act [FWPCA; 33 U.S.C. 1321 (j)] to address the development of a National Planning and Response System. OPA called for the creation of planning teams to develop contingency plans to address oil and hazardous waste spills and responses. The National Response Team (NRT) is primarily a planning, policy and coordination body and does not respond directly to incidents. The NRT membership consists of 15 Federal agencies with responsibilities, interests and expertise in various aspects of emergency response to pollution incidents and is responsible for developing a National Contingency Plan (NCP). EPA serves as the chair and USCG serves as vice-chair. The Oceania Regional Response Team (ORRT) is comprised of Federal and State (or Territory) representation. Like the NRT, the ORRT is mainly a planning, policy and coordinating body, and does not respond directly to incidents. The ORRT has Federal and State representation. EPA and USCG co-chair the team. ORRT provides guidance and assistance to Area Committees and is responsible for developing Regional Contingency Plans (RCP).

As part of the National Planning Response and Planning System, Area Committees are to be established for each area designated by the President. These Area Committees are to be comprised of qualified personnel from Federal, State and local agencies. Each Area Committee, under the direction of the Federal On-Scene Coordinator (OSC) for the area, is responsible for developing an Area Contingency Plan (ACP) which, when implemented in conjunction with the National Contingency Plan (NCP) and Regional Contingency Plan (RCP), shall be adequate to remove a worst case discharge of oil or a hazardous substance, and to mitigate or prevent a substantial threat of such a discharge, from a vessel, offshore facility, or onshore facility operating in or near the geographic area. Each Area Committee is also responsible for working with State and local officials to pre-plan for joint response efforts, including appropriate procedures for mechanical recovery, dispersal, shoreline cleanup, protection of sensitive environmental areas, and protection, rescue, and rehabilitation of fisheries and wildlife. The Area Committee is also

required to work with State and local officials to expedite decisions for the use of dispersants and other mitigating substances and devices.

Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) entitled the Emergency Planning and Community Right-to-Know Act (EPCRA). This Federal statute requires emergency response planning at the State and local level. The State of Hawaii established a Hawaii State Emergency Response Commission (HSERC) to comply with this requirement and designated DOH as the lead agency to implement the EPCRA. The HSERC was required to delineate emergency planning districts and appoint local emergency response committees to facilitate the preparation and implementation of local emergency plans. Hawaii's four counties (Hawaii, Honolulu, Maui and Kauai) represent the emergency planning districts for the State. The HSERC established a technical subcommittee to draft a State plan to provide statewide guidance on oil and hazardous substances emergency response. The result is Hawaii's Oil and Hazardous Substances Emergency Response Plan. This plan is incorporated in the Area Contingency Plan (ACP).

## ii. Sanctuary Action

Contingency plans provide the basis under which agencies and individuals respond to oil spills, chemical releases, vessel groundings and other events which may threaten natural resources and human life. As a resource trustee, the National Marine Sanctuary Program is involved in several levels of contingency planning with various State and Federal agencies. The National Contingency Plan provides the basic framework and organization under which all oil and chemical response efforts are conducted. It provides for a National Response Center, which acts as a nationwide notification and reporting point for all spill incidents, and defines the roles of the regional response teams, Federal and state on-scene coordinators, and special forces. The Regional Response Teams (RRT) are aligned within the boundaries of the Federally defined Regions, and provide for large scale contingency planning and resolution of issues related to response actions at the Federal-state interface level. The regional response plans generally deal with strategic issues which affect large areas, and cross many local jurisdictional boundaries. The Local Area Committees (LAC) are mandated by the Oil Pollution Act of 1990. The boundaries and size of these Local Areas vary from region to region, and generally tend to follow county or city boundaries in most areas. A few Local Areas have been delineated to coincide with the limits of Coast Guard Districts or Marine Safety Office areas. The Local Area Contingency plans are much more detailed in nature and are tasked to consider several potential worst-case-scenarios for the local area, making these plans tactical in scope and effect.

The National Marine Sanctuaries are represented at both the regional and local levels by involvement in the RRT and LAC processes. Information specific to the National Marine Sanctuaries is frequently inserted into the respective plans. In addition, individual sanctuary-specific planning and support activity is underway which will provide detailed information about the sanctuary resources needed by the response agencies in the event of an incident. The sanctuary plan will also provide policy guidance to the sanctuary manager and other staff that deal with the many issues which are involved in emergency response, damage assessment, and restoration planning. One page information briefs have been prepared for insertion into the Regional and Local Area Contingency plans for each National Marine Sanctuary. The purpose of this insert is to inform the Regional Response Team, Local Area Committee members and other individuals and agencies interested in oil and chemical spill response issues about the basic information which would be needed during the first few hours of an emergency response action. Each insert page provides a small map showing the general relationship of the sanctuary boundary to the adjacent coastline, and a listing of the exact coordinates of the boundary on the back of the page. A brief history of the sanctuary includes the date(s) of designation, reference to the major legislative mandates, and the nature of the trustee responsibility. A brief contact list for key sanctuary personnel, and a review of the major natural resources potentially at risk complete the information.

These inserts will be revised as needed and distributed to the DOC Regional Response Team representatives and Local Area Committee members as needed to maintain awareness of the National Marine Sanctuaries' existence and needs.

NMFS and HAZMAT represent NOAA on the Area Committee established under the Oil Pollution Act of 1990 (OPA 90). NMFS assisted the U.S. Coast Guard in the development of the Area Plan for the Pacific Region which incorporates guidelines for response procedures, use of dispersants, in-situ burning, coordination among Federal and State agencies, and damage assessment. The Sanctuary will work in close coordination with NMFS, the Western Pacific Regional Response Team (RRT), and the Hawaii State Emergency Response Commission (HSERC), to ensure that Sanctuary concerns are addressed in these local response plans.

#### d. Damage Assessment and Restoration Efforts

Section 312 of the NMSA, 16 U.S.C. §1443, authorizes NOAA to commence civil actions to recover for response costs and damages against persons who destroy, cause the loss of, or injure sanctuary resources in National Marine Sanctuaries. In Hawaii, Sanctuary resources include the humpback whale and its Sanctuary habitat. Damages include compensation for: the cost of restoring, replacing, or acquiring the equivalent of the destroyed, lost, or injured sanctuary resource; the value of the lost-use of sanctuary resources pending restoration or replacement or the acquisition of equivalent resources; or the value of a sanctuary resource if it cannot be restored, replaced, or an equivalent acquired; the cost of performing damage assessments; and the reasonable cost of monitoring.

Funds recovered from damage actions must be spent according to specific priorities delineated in the statute. Twenty percent of recovered response costs and damages, up to a maximum balance of \$750,000, must be used to finance future response actions and damage assessments. The remaining funds must be spent according to this order of priority: (1) restoring, replacing or acquiring the equivalent of the sanctuary resources which were the subject of the action; (2) managing and improving the National Marine Sanctuary affected by the incident; and (3) managing and improving any other National Marine Sanctuary.

When an incident results in destruction, loss, or injury to national marine sanctuary resources, SRD collaborates with several other elements within NOAA to respond and to initiate the damage assessment and restoration process. Chief among these is the Damage Assessment and Restoration Program (DARP) consisting of the National Ocean Service's (NOS) Damage Assessment Center (DAC), the National Marine Fisheries Service's (NMFS) Restoration Center (RC), and the Office of the General Counsel. Other Federal and State agencies may be involved and include the Coast Guard, Navy, and State environmental protection and maritime enforcement agencies.

NOAA's ultimate goal in damage assessment is to restore injured coastal and marine resources. The natural resource damage assessment process is designed to be fair to the responsible party while obtaining adequate compensation to the public to restore injured resources. Section 312 is codified in the Sanctuary regulations at 15 C.F.R. § 945.9.

### 6. Research and Long-Term Monitoring

#### a. Introduction

Research and long-term monitoring are critical to achieving the Sanctuary's primary goal of resource protection for the humpback whale and its Sanctuary habitat. To protect and conserve humpback whales and their habitat for the benefit of present and future generations, it is necessary to improve our present understanding of the humpback's *vital life rates* (age at sexual maturity,



pregnancy rates, variability in reproductive success, calving intervals, age-specific mortality and survivorship rates, longevity), abundance, distribution, movement, behavior and interrelationships with its Hawaiian habitat, and in other areas crucial to the whale's survival, such as the Alaskan feeding grounds. It is also necessary to identify how these parameters change over time due to natural or human-induced factors. While much scientific research has been and continues to be collected on humpback whales, there remain many unanswered questions and unknowns concerning habitat requirements, population dynamics, threats and impacts, and in fully understanding vital rates and social behaviors. Such baseline information is needed to develop an understanding of Sanctuary resources and ensure the effective implementation of management strategies using the best available scientific information.

Information from research and long-term monitoring activities will be used to:

- provide NOAA and the public with a means to evaluate the effectiveness of the Sanctuary in protecting the humpback whale and its habitat;
- provide a means to distinguish between the effects of human activities and natural variability on identified and perceived impacts to humpback whales and their habitat;
- develop hypotheses about cause-effect relationships which can then be investigated;
- evaluate management actions; and
- verify and validate quantitative predictive models used to evaluate and select management actions.

A number of existing local and mainland researchers and institutions currently conduct research on humpback whales and their habitat. They will be encouraged to participate in the development and implementation of the Sanctuary's Research and Long-Term Monitoring Program. In coordination with the SAC's Research Working Group, NMFS, and other researchers and resource managers, the Sanctuary Manager (and research coordinator) will develop a research and long-term monitoring program that will complement existing efforts and fills needed gaps. The Sanctuary research program will also coordinate with the education/interpretation community to broaden public understanding of the need for research on humpback whales and their habitat, the type of research occurring within the Sanctuary, and results from research activities. This coordination will extend to the research agendas of other national marine sanctuaries whose scientific inquiries address humpback whale populations in both the Pacific and Atlantic Oceans.

The Sanctuary Monitoring Program will focus both on North Pacific humpback whales and components of the Sanctuary's habitat which are important to humpback whales (e.g., chemical, physical and biological oceanography, human activities, spatial and temporal needs). Long-term monitoring and the resulting data bases will provide the basis for interpreting and/or predicting natural and human-induced events in the Sanctuary and in areas adjacent to the Sanctuary. General directions and priorities for additional research are provided in this section as a guide for identifying and selecting appropriate future Sanctuary research projects. The process for preparing an annual Sanctuary Research Plan (SRP) and annual report is also discussed below.

Finally, the process to identify additional marine resources and ecosystems of national significance for possible inclusion in the Sanctuary (see Part III, C of the Management Plan) will also involve developing recommendations for research objectives and strategies that correspond with the identified resources. Step 3 of the research review/evaluation process addresses further study of additional marine resources and ecosystems. Inquiry into the significance of the identified resources or the need for additional management may be warranted. The Sanctuary will look for guidance and recommendations from the SAC Working Groups or sub-committees established to assist in this area. These recommendations would be considered in developing a proposal and modifications to the yearly SRP for the Sanctuary. If a supplemental EIS/MP, is necessary, it will

be reviewed by the public before changes are made to the management plan and implementing regulations.

**b. Research and Long-Term Monitoring Program Goals and Objectives**

The primary goals of a Research and Monitoring Program are to improve understanding of the central North Pacific population of humpback whales and their wintering habitat; to address and resolve specific management concerns; and to coordinate and facilitate information exchange among the various researchers and institutions, agencies, and the general public.

**Sanctuary Goals:** The HINMSA and the NMFS Humpback Whale Recovery Plan establish the following research and monitoring goals:

- Development of a greater understanding of humpback whales, their habitat requirements and the factors responsible for negatively impacting their recovery;
- Identification of research needs and priorities;
- Establishment of a long-term ecological monitoring program with respect to humpback whales and their habitat;
- Establishment of strong communication and cooperation between the scientific community and resource managers;
- Coordination of research efforts to achieve the most beneficial results;
- Promotion of public awareness and resource stewardship; and
- Identification of resources and ecosystems, in addition to humpback whales and their habitat, for possible Sanctuary management.

The Sanctuary Research and Long-Term Monitoring Program will play an integral role in the overall effort to implement portions of the NMFS Humpback Whale Recovery Plan and other long-term protection plans for the humpback whale and its habitat.

**Sanctuary Objectives:** To achieve these goals, the Sanctuary Manager and Sanctuary Research Coordinator will work with NMFS and the SAC's Research Working Group to accomplish the following objectives<sup>2</sup>:

**Objective 1:** Characterize the central North Pacific Stock of humpback whales and their Hawaiian habitat to establish a baseline for detecting and monitoring natural- and human-induced changes.

**Strategy 1.1:** Survey and evaluate available information on humpback whales to determine baseline information on vital rates, population estimates, distribution, migration, birth and survivorship, and behaviors.

**Strategy 1.2:** Survey and evaluate available information on humpback whales and their habitat to identify essential habitat and to determine critical data and information gaps.

**Strategy 1.3:** Survey and evaluate available information to identify potential human activities and natural phenomena responsible for potential injury, harassment or disturbance to humpback whales and their habitat.

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<sup>2</sup>Note: The following objectives, strategies and tasks represent goals that the Sanctuary will strive to fulfill over the next 5-10 years. However, resource and staff limitations may hinder the completion of all tasks. Each year, the Sanctuary Manager and Research Coordinator will coordinate with the SAC Research Working Group to develop an annual Sanctuary Research Plan based upon available resources and identified priorities for that year. The Sanctuary research priorities will be congruent with priorities established by the national program.

**Strategy 1.4:** Provide support to analyze existing and previously collected data and publish in scientific journals or for new projects that fill needed knowledge-gaps.

**Objective 2:** Establish a coordinating framework and procedures for identifying, selecting and sponsoring research projects to ensure that the research topics are responsive to management concerns and that research results contribute to improved management decision making in the Sanctuary.

**Strategy 2.1:** Establish a SAC Research Working Group to provide advice and recommendations to the SAC, Sanctuary Manager and Sanctuary Research Coordinator on identifying, selecting and sponsoring Sanctuary research projects based on research and management needs.

**Task 2.1.1:** Develop guidelines for conducting Sanctuary sponsored research projects.

**Strategy 2.2:** Annually evaluate the effectiveness and efficiency of the Sanctuary research program and its integration with other resource protection and education objectives.

**Objective 3:** Develop a comprehensive long-term ecological monitoring program to fill knowledge gaps and address management related issues and concerns. The program should incorporate experimental designs that can help detect and discern the cause or causes of future changes and trends in the vital parameters and the important habitats and habitat components of the humpback population that "winters" in Hawaii.

**Strategy 3.1:** Develop and implement a coordinated long-term program for monitoring the distribution, abundance, age-sex composition, movement patterns, survival/mortality, habitat use and behavior of whales in, and possibly adjacent to the Sanctuary.

**Task 3.1.1:** Conduct a thorough analysis of existing photographic mark-recapture data information systems to determine the steps needed to ensure the system can be used to assess population abundance, distribution and movements, and other population parameters.

**Task 3.1.2:** Support NMFS efforts to continue the statewide mark-recapture effort using researchers through the state.

**Task 3.1.3:** Collaborate with NMFS to support a coordinated long-term statewide aerial survey program to monitor changes in population abundance and distribution.

**Strategy 3.2:** Develop and implement a long-term program for identifying, assessing and monitoring threats and impacts to humpback whales and their habitat. Scientific protocols should be designed to discern cause and effect relationships between variables. Identify steps to be taken to assess and eliminate, minimize, or mitigate threats.

**Task 3.2.1:** Support systematic research of vessel traffic and acoustic impacts on humpback whale behavior and distribution. Studies should investigate cause and effect relationships of how noise, and vessel or aircraft movement, speed, type and density impacts humpback whales.

**Task 3.2.2:** Monitor water quality and effects of vessel, point and land-based pollution on humpback whales and their habitat. Facilitate scientific studies that discern cause and effect relationships between water quality and humpback whales. Explore other aspects of the humpback whale habitat as indicators of pollutant impacts on the

environment since humpback whale may not manifest the impacts of such pollutants for many years.

**Strategy 3.3:** Monitor all research activities conducted in the Sanctuary and obtain data and data analyses from such research activities to the maximum extent practicable. Initiate a voluntary research registry for all research projects, whether focusing on the humpback whale or other aspects of its habitat in the Sanctuary.

**Objective 4:** Develop a data and information management system for tracking and integrating new information into an evolving understanding of humpback whales and their habitat.

**Strategy 4.1:** Assess the effectiveness of existing databases and information systems used for long-term monitoring of humpback whales and their habitat. Include an analyses of data compatibility, utility, purpose, costs, accuracy (data verification), and accessibility (whether or not researchers will provide proprietary data).

**Strategy 4.2:** Identify, in consultation with researchers, educators, and Federal, State and county agencies the types of data and information that should be stored, and the most effective and user-friendly means for accessing this data and information.

**Strategy 4.3:** Explore the feasibility of developing a GIS or other appropriate data/information technologies cooperatively with other Federal, State and county agencies involved in ocean and coastal resource management. The GIS should include information on humpback distribution, the biological, physical, chemical parameters of humpback whale habitat, and human activities in and adjacent to the Sanctuary).

**Objective 5:** Encourage information exchange among all organizations and agencies undertaking management-related research in the Sanctuary to promote more informed management and decision making.

**Strategy 5.1:** Facilitate communication with the research and education communities, user groups, and the public to promote mutual understanding of each other's role in encouraging public knowledge and appreciation of humpback whales and their habitat.

**Strategy 5.2:** Incorporate research results into Sanctuary education and interpretive programs and publications in a format and language useful to resource users and the general public.

**Strategy 5.3:** Develop a program to disseminate scientific research results, including an information exchange network, conferences, and support for the publication of research findings in peer-reviewed scientific journals.

**Strategy 5.4:** Develop, in cooperation with local education and conservation organizations, teacher enrichment programs to facilitate the transfer of information into science, math, environmental and social studies into K-12 and curriculum.

**Objective 6:** Facilitate the process to evaluate marine resources, in addition to humpback whales and their habitat, for possible inclusion in the Sanctuary.

**Strategy 6.1:** Support research into marine resources, in addition to humpback whales and their habitat, that may be of special national significance and suitable for Sanctuary management. Explore the significance of these resources and the need for additional management measures.

**Strategy 6.2:** Work with the SAC's Research Working Group in developing additional research objectives and strategies that correspond with identified resources.

**c. Framework for Research**

The Sanctuary's research program will consist of five principal categories:

- baseline studies to determine features and processes of the North Pacific humpback whale wintering habitat; vital rates, behavior, abundance, and distribution of humpback whales; interactions among the living resources comprising the North Pacific humpback whale wintering habitat; and types and patterns of human activities within and around the Sanctuary;
- monitoring studies to document changes in humpback whale behavior, Sanctuary use patterns, environmental quality of Sanctuary habitat components, and human activities and their effects on Sanctuary resources;
- predictive studies to assess causes and effects of ecological and environmental changes to determine trends and anticipate Sanctuary management issues;
- data and information storage system to catalogue past, present and future research studies so that these results are easily accessible to the public;
- studies of marine resources, in addition to humpback whales and their habitat, for possible inclusion in the Sanctuary.

Each of these categories is described in more detail below:

**i. Baseline Studies**

Baseline seasonal studies will generally be directed at better understanding the status (abundance, distribution and survivorship), condition (vital rates) and behaviors of the central North Pacific population of humpback whales wintering in Hawaiian waters, their particular habitat requirements, and the status and condition of that habitat. In addition, initial baseline studies may also focus on the effects of human activities on both the humpback whales and on resources comprising their habitat.

**ii. Monitoring**

In addition to data bases documenting living and non-living components of the Sanctuary, successful management requires knowledge and understanding of long-term changes occurring within the Hawaiian Islands system. Humpback whales reach sexual maturity in 7-9 years. Females calve about every two years. Therefore impacts to humpback whales will take a long time to detect, and a long-term monitoring program will need to recognize and observe trends over a 20-50 year time frame. The monitoring program should include studies that can help detect and determine the probable or possible causes of changes (natural or human-caused) in the distribution, abundance, age-sex composition, and habitat-use patterns of humpback whales and key characteristics of the habitat. Consistent and comparable long-term data are needed to identify spatial and temporal trends in these parameters. Monitoring studies should also be established to investigate the relationship of water quality and human activities on humpback whales and their habitat.

**iii. Predictive Studies**

The Sanctuary research program will conduct, as necessary, targeted studies that address management needs, analyze the causes and consequences of system changes, and predict the

effects on humpback whales of new or increased levels of human activity within or around the Sanctuary.

#### iv. Data and Information System

An important component of the research program is to establish a mutually agreeable system for storing/archiving and retrieving past, present and future research data and other relevant information. The Sanctuary will work with researchers and government agencies to determine the best way to facilitate information storage and retrieval. Possible systems could involve a Geographic Information System (GIS), computer accessible network, Internet, on-site data center, fluke-photo catalogue and other appropriate data systems.

#### v. Marine Resource Studies

Finally, the research program will support research into marine resources, in addition to humpback whales and their habitat, that may be of special national significance and suitable for Sanctuary management. The studies will explore the significance of these resources and the need for additional Sanctuary management measures. The Sanctuary will work with the SAC's Research Working Group in developing additional research objectives and strategies that correspond with identified resources

#### d. Selection of Sanctuary-Funded Research Projects

Sanctuary funded research projects will primarily focus on management issues and concerns related to the central North Pacific population of humpback whales which frequent the main Hawaiian Islands. The Sanctuary Manager, Sanctuary Research Coordinator, and SAC Research Working Group will develop research selection procedures to ensure that the Sanctuary's research program is consistent with the policies and directions of the NMSP. Sanctuary-funded research projects will be selected in accordance with research priorities and monitoring needs identified in the annual Hawaii Sanctuary Research Plan.

Several preliminary areas of research have been identified by the public during the development of this final management plan. These include:

- Characterization of the humpback whale habitat within the 100 fathom isobath;
- Determination of humpback whale population vital rates (e.g., age at sexual maturity, pregnancy rates, variability in reproductive success, calving intervals, age-specific mortality and survivorship rates, longevity) and population abundance and distribution.
- Assessment of various human impacts on humpback whales and their habitat (e.g., vessel traffic type and volume; acoustics; water quality; research; deep-sea waste disposal, alterations of the seabed).
- Development of temporal and spatial data bases to measure the "carrying capacity" of human activities, with respect to humpback whales and their habitat.
- Compilation of an annual report on Sanctuary-sponsored research on humpback whales and their habitat to enhance Sanctuary management and resource protection.

Sanctuary funded research will be coordinated by the Sanctuary Research Coordinator, who will work closely with the SAC's Research Working Group, NMFS Southwest Region/Center, and the National Marine Mammal Laboratory (NMML). Coordination will be particularly important between NMFS and the Sanctuary since NMFS is involved with the coordination of humpback whale research throughout the entire Pacific basin. As such, Sanctuary funded research priorities may differ from those by NMFS given to humpback whale research

efforts throughout the larger Pacific basin area. The Sanctuary Advisory Council's Research Working Group will be responsible for providing advice and recommendations to the SAC and the Sanctuary Manager on: priorities for research topics; establishing evaluation criteria for Request for Proposals (RFP's); establishing reporting and publishing guidelines; monitoring the quality of ongoing research; and distributing preliminary findings for peer review. The Sanctuary Research Coordinator will consult with NMFS-SW and the NMML to ensure that the proposed research is consistent with the objectives of other NOAA humpback whale research efforts in the Pacific. Final Sanctuary approval for research projects will be made following receipt by the principal investigators of necessary permits from appropriate agencies. Where possible, collaborative research projects will be developed to study humpback whales in summer feeding grounds in Alaska and migration routes to and from these areas. The Pacific Region of the NMSP provides an excellent platform for research since humpback whales are found off the Olympic Coast, Gulf of the Farallones, Cordell Bank, Monterey Bay, Channel Islands, and Fagatele Bay National Marine Sanctuaries.

#### i. Research Permits

Research activities that involve approaching humpback whales within 100 yards, or taking as defined by the MMPA and ESA are required to obtain a NMFS research permit. For such activities conducted in State waters, a DLNR-DAR research permit is also required. No new or additional Sanctuary permit will be required to conduct such research in the Sanctuary. SRD has developed a MOU with NMFS to work within their existing permitting structure to review and provide recommendations on proposals to conduct research on humpback whales within the Sanctuary. This review process will occur during the thirty-day public review process required under the MMPA.

#### ii. Annual Sanctuary Research Plan (SRP)

An annual SRP will be prepared by the Sanctuary Manager, with assistance from the SAC Research Working Group. The annual SRP is a brief description of the research goals for each fiscal year and a description of how these goals fit into those of the Sanctuary management plan. SRD will then incorporate the annual SRP into a national plan that includes SRPs for each sanctuary. Steps in the annual process include:

- (1) Identifying Sanctuary management concerns;
- (2) Establishing research priorities, based upon the identification of management concerns. Research priorities will be established by the Sanctuary Manager in consultation with the SAC and its Research Working Group, and relevant NMFS Scientific Review Groups. Important factors to be considered in establishing research priorities include:
  - whether immediate or evolving management issues can be resolved through directed research by the Sanctuary or other means;
  - prospects of related research in progress; and
  - availability of funding and equipment for research support.
- (3) Holding research workshops on an occasional basis to facilitate the identification of research problems or opportunities. After the management issues and research priorities are developed, a draft SRP is prepared.
- (4) Preparing a SRP that includes documentation of how each project meets SRD's selection criteria.

- (5) A research announcement and request for detailed research proposals is prepared. The announcement and request for proposals will discuss the identified management concerns, and summarize past and current related research. Its purpose is to solicit proposals from the scientific community that satisfy the criteria specified in the SRP.

### iii. Monitoring Research Project Progress

The Sanctuary Manager (or Research Coordinator) will coordinate with NMFS Pacific Area Office to monitor humpback whale research in the Sanctuary. The Sanctuary Manager will assist NMFS, as necessary, to maintain records of all current research, equipment being used on the site, frequency of researchers' visits to the site, and progress to date on each current research project. To the extent possible, the Sanctuary Manager will help facilitate research activities within the Sanctuary. Final research reports may be peer reviewed by scientists recognized in the particular field of inquiry, as well as by resource managers before final approval of the report by NMFS. Particularly outstanding research reports may be published by SRD or NMFS in its Technical Report/Memorandum Series.

### iv. Information Exchange

Direct SRD funding for research is limited. To complement and augment directly funded research, SRD encourages research funded by other sources, particularly where it supports management objectives to protect the humpback whale and its habitat. For example, water quality or whale monitoring programs conducted by a Federal, State, or county agency provide a wealth of data which have direct application for Sanctuary management. To assist in this information exchange effort, SRD will make available to other agencies and interested private institutions Sanctuary resource data obtained from past and ongoing research projects.

## 7. Education and Outreach

### a. Introduction

Public awareness, understanding, and appreciation for the special values of humpback whales are essential for their protection and continued vitality. The Sanctuary education and interpretive program will focus on enhancing public understanding and appreciation of humpback whales and their relationship with the Hawaiian Islands marine environment. A well-informed public and user community will not only cultivate a greater appreciation of the need to protect Sanctuary resources, but also enhance voluntary regulatory compliance. The Sanctuary will accomplish this by working with existing public and private-sector educational programs and institutions to produce and disseminate information, promote public participation, develop outreach activities for the visitor and local population, and provide information to various user groups on the Sanctuary regulations designed to ensure resource protection.

Changing information gaps and needs demand that education and outreach be a continuing and evolving process. Information translation, packaging and dissemination is an important part of resource protection. While the primary purpose of the Sanctuary is protection of resource and site qualities, the Act also requires NOAA to facilitate public and private uses (including Native Hawaiian uses) consistent with the primary objective of resource protection.

There are two major groups of people that the Sanctuary intends to target: residents and visitors of Hawaii. State of Hawaii statistics indicate that 80 percent of the visitors and residents engage in some form of ocean or coastal activity. It is imperative that these ocean users are educated users. Effective education programs occur at the community level. The Sanctuary will work with communities and groups to ensure that this occurs.



The HINMSA mandates the development of an education and interpretation program for the humpback whale and its habitat, and other marine resources found within the Hawaiian environment. Strong support for such an education program was received from the public during the March 1993 and 1994 public meetings and technical consultations. In addition, the NMFS Humpback Whale Recovery Plan and Hawaii Ocean Resources Management Plan specifically promote education and outreach as an important management tool for resource protection.

A number of existing local agencies and private institutions currently provide education opportunities on these resources. These agencies will be encouraged to participate in the development and implementation of the Sanctuary's Education and Interpretation program. Through partnerships, MOUs, and cooperative agreements, the Sanctuary will work to complement and assist existing efforts to develop and disseminate information about the humpback whale and its habitat, and other resources to visitors and residents /state-wide. In addition, the Sanctuary will encourage and work with researchers to develop and incorporate research results into educational programs and products.

#### **b. Education and Outreach Program Goals and Objectives**

The primary goals of the Education and Outreach Program are to: enhance knowledge of the Sanctuary's purposes, goals and regulations; improve public awareness and understanding of the humpback whale and its habitat; facilitate responsible human uses within the Sanctuary; encourage public participation; and facilitate information exchange between the various environmental educators and interpreters, scientists, agencies, and the general public.

**Sanctuary Goals:** The NMSA and the HINMSA, have established additional education and outreach goals, to:

- promote public understanding, support, and participation in the Hawaiian Islands National Marine Sanctuary and the NMSP;
- educate and interpret for the public the relationship of humpback whales to the Hawaiian Islands marine environment;
- promote education among users of the Sanctuary and the general public about conservation of humpback whales, their habitat, and other marine resources
- enhance public awareness, understanding, appreciation, and wise use of the Hawaiian Islands marine environment;
- facilitate environmental education opportunities for all segments of society;
- promote and foster a clear awareness of the economic, biological, recreational, educational, research and diverse cultural values of the Hawaiian Islands, as well as the interdependence of these values upon one another;
- facilitate all public and private uses if the Sanctuary (including uses of Hawaiian natives customarily and traditionally exercised for subsistence, cultural and religious purposes) consistent with the primary objective of protection of humpback whales and their habitat; and
- provide opportunities for citizen involvement in developing and implementing education programs.

**Sanctuary Objectives:** To achieve these goals, the Sanctuary Manager and Education Coordinator will work with the SAC's Education Working Group to accomplish the following objectives<sup>3</sup>:

**Objective 1:** Enhance public awareness, understanding and appreciation of humpback whales and their habitat.

**Strategy 1.1:** Develop and disseminate, in cooperation with existing education organizations, educational materials and programs aimed at enhancing public awareness and appreciation for humpback whales and their winter habitat, and demonstrate the need for their protection.

**Task 1.1.1:** Develop pamphlets, brochures, newsletters, marine education resource directories, videos, fact sheets, and education packets on the humpback whale's biology, behavior, migration, distribution and habitat preferences in a variety of languages for broad public distribution.

**Task 1.1.3:** Develop cooperative arrangements with existing institutions to develop information products and programs and to co-locate information displays on humpback whales and their habitat throughout the Sanctuary.

**Strategy 1.2:** Educate users about the possible threats and impacts to humpback whales in Hawaii and elsewhere and actions that can be taken to prevent or mitigate these impacts.

**Task 1.2.1:** Provide educational materials to the public about impacts from human activities in Hawaii (approaching and disturbing whales, pollution, runoff, vessel traffic, noise, high seas driftnets).

**Task 1.2.2:** Support existing efforts to expand the annual Boat Captains training program for whalewatch captains and other interested boaters.

**Task 1.2.3:** Encourage public stewardship. Provide action items that individuals and groups can do to ensure the protection for humpback whales and their Hawaiian habitat (i.e., reduce pollution and degradation, observe humpback whale approach regulations, participate in marine conservation and outreach programs).

**Objective 2:** Create public awareness of the HIHWNMS and the NMSP.

**Strategy 2.1:** Distribute and present information about the national program mission and other sites to interested groups.

**Task 2.1.1:** Develop brochures, newsletters and other media, including multi-lingual interpretive signs and kiosks at various vantage points (boat ramps, scenic lookouts, tourist information centers) to educate the public about Sanctuary resources and the HIHWNMS.

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<sup>3</sup>Note: The following objectives, strategies and tasks represent long-term goals that the Sanctuary will strive to fulfill over the next 5-10 years. However, resource and staff limitations may hinder the completion of all tasks. Each year, the Sanctuary Manager and Education Coordinator will coordinate with the SAC Education Working Group to develop an annual Sanctuary Education Plan based upon available resources and identified priorities for that year. The Sanctuary education priorities will be congruent with priorities established by the national program. Many of the following objectives, strategies and tasks directly resulted from the many ideas suggested by the public during the statewide March 1993 and March 1994 public meetings and technical workshops.

**Task 2.1.2:** Participate in environmental awareness celebrations, festivals, conferences and workshops.

**Strategy 2.2:** Clearly articulate the purpose, goals and objectives, regulations and resources of the HIIHWNMS with specific emphasis on the need to use the resources and area wisely to ensure sustained use.

**Strategy 2.3:** Promote, in cooperation with other non-profit organizations, the concept of support groups and cooperating associations to facilitate public and volunteer participation, and add additional resources to implement the HIIHWNMS program.

**Strategy 2.4:** Develop an information/education/research network with other marine sanctuaries conducting research on humpback whales and their habitats.

**Task 2.4.1:** Collaborate with other national marine sanctuaries and summarize existing research and education efforts on humpback whales and their habitat.

**Task 2.4.2:** Initiate cooperative education/research programs and projects among other sanctuaries with humpback whales.

**Objective 3:** Establish a coordinating framework and procedures for identifying, selecting and sponsoring education projects to ensure that the education topics are responsive to management concerns and that the education products contribute to greater understanding and appreciation of the Sanctuary, humpback whales and the broader Hawaiian Islands marine environment.

**Strategy 3.1:** Establish a Sanctuary Advisory Council Education Working Group to provide advice, recommendations, and information to the Sanctuary Manager, Sanctuary Education Coordinator, and the SAC on identifying: (1) current activities in the education community; (2) methods and opportunities to establish cooperative efforts; (3) direction for the Sanctuary Education Program; (4) ways to prevent duplicative efforts; (5) guidelines for the production of educational materials; and to (6) develop annual Sanctuary education and outreach plan.

**Strategy 3.2:** Develop standards and application criteria for Educational Request for Proposals (RFPs).

**Strategy 3.3:** Develop, with assistance from the SAC Education Working Group, guidelines for project selection and awards.

**Strategy 3.4:** Create opportunities for public involvement to encourage feedback on the effectiveness of education/interpretive programs, so that ineffective programs can be restructured and successful ones promoted.

**Objective 4:** Encourage information exchange among all persons, organizations and agencies undertaking environmental education and research activities in the Sanctuary.

**Strategy 4.1:** Collaborate with other education organizations and institutions to generate joint opportunities to provide interpretive/education services, including extension and outreach programs, marine curriculum, newsletters, volunteer programs and workshops.

**Strategy 4.2:** Initiate a coordination network with humpback whale educators and researchers in the North and South Pacific and Atlantic Oceans.

**Strategy 4.3:** Facilitate communication between the education and research communities and tourism/recreation industry to promote mutual understanding of each other's role in encouraging public knowledge and appreciation of humpback whales and their habitat.

**Strategy 4.4:** Incorporate research results into Sanctuary education and interpretive programs and disseminate publications in a format and language useful to resources users and the general public.

**Objective 5:** Develop a user friendly depository for information and research results pertaining to Sanctuary resources and management information.

**Strategy 5.1:** Archive research results and reports in depositories/libraries in at least one central location and explore the possibility of using the public library system throughout the islands to make information accessible to the public.

**Task 5.1.1:** Explore the feasibility for an on-line computer interactive information storage/retrieval system (e.g., Internet or an on-line server), after assessing existing computer interactive resources.

**Objective 6:** Establish cooperative education programs with Native Hawaiian groups to develop programs that educate the general public about Native Hawaiian traditions, culture, resource uses and religion as they relate to Hawaii's marine environment.

**Strategy 6.1:** Nurture a cultural awareness based upon the Native Hawaiian tradition of respect for the ocean and its resources as a central theme of the Hawaiian culture.

**Strategy 6.2:** Document Native Hawaiian knowledge of traditional and cultural management techniques for incorporation into management and education programs.

**Task 6.2.1:** Recognize and encourage the rehabilitation of traditional Native Hawaiian resource management and subsistence demonstration projects (Ahupua'a, Konohiki fisheries, Taboos, fish ponds, etc.)

**Strategy 6.3:** Support efforts to translate Native Hawaiian stories, myths and legends concerning the marine environment into written records.

Sanctuary education programs and activities will be coordinated by a Sanctuary Education Coordinator who will work closely with the SAC's Education Working Group. The Education Working Group will be responsible for providing advice and recommendations on: the development of annual Sanctuary Education Plans; generating and establishing priorities for education topics; establishing evaluation criteria for Request For Proposals (RFPs); monitoring the quality of ongoing education programs; and distributing preliminary findings for peer review. The Sanctuary Manager and Education Coordinator will work to implement the recommendations of the SAC Education Working Group. The effectiveness of the Education Program will be evaluated annually by the Sanctuary Manager, Education Coordinator and SAC.

#### **c. Education and Interpretation Opportunities**

Education and interpretation opportunities for the Sanctuary will be targeted toward three basic user audiences: visitors to the Sanctuary; visitors to the Sanctuary headquarters and satellite offices; and interested individuals or organizations not visiting either location (off-site). Numerous education and interpretation opportunities exist for all types of audiences.

The accessibility of the Hawaiian Islands Humpback Whale National Marine Sanctuary to numerous recreational and commercial boaters, swimmers, surfers, divers, commercial fishermen, and scientific researchers, provides a variety of ways in which to reach the visiting public with information about the Sanctuary's resources and programs. Various tools exist to reach on-site users: brochures and other informational materials distributed aboard whalewatch vessels; recreational charterboat captains; and research and educational institutions sponsoring vessel trips to the site.

The establishment of the Sanctuary headquarters on Maui with other potential satellite offices on the neighbor islands will provide a focal point for interested members of the public who may or may not intend to actually visit all areas of the Sanctuary. These offices will make available information and interpretive materials on humpback whales, Hawaii's marine ecosystem, Native Hawaiian traditional and cultural activities, recreational activities, and Sanctuary regulations.

Some of the educational and interpretive materials will be presented in audio-visual formats; others in printed form. The Sanctuary headquarters will also provide a location for the public to learn about other private or government marine resource management activities occurring within or near the Sanctuary. Information will also be provided on how the Sanctuary program coordinates with other public and private institutions or agencies to ensure the continued protection and viability of Hawaii's humpback whales and their habitat.

Finally, Sanctuary interpretive staff will conduct outreach activities to make Sanctuary information available to individuals, schools, and organizations throughout the main Hawaiian Islands. These materials will be directed to both those persons who frequently use the Sanctuary and those who are not likely to use the Sanctuary, but who are nonetheless interested in learning about the HIHWNMS and the NMSP.

#### d. Education and Interpretation Programs

Interpretation for the Sanctuary will consist of three distinct programs:

- on-site visitor programs for whalewatching vessels, and other recreational marine users and visitors to the Sanctuary;
- visitor center programs for individuals visiting the Sanctuary headquarters, or other satellite information centers; and
- outreach programs for interested individuals and groups not visiting the Sanctuary or its headquarters, but who desire to learn more about the Sanctuary's resources and qualities.

#### i. On-Site Visitor Programs

On-site education and outreach provided by the HIHWNMS Manager (or education coordinator) will consist primarily of printed materials describing humpback whales and their habitat, and the Sanctuary management program. These materials will be made available for distribution at local government offices, marine recreation businesses, marinas, whalewatching vessels, humpback whale interpretive centers, tourism information centers, airports, harbors and other local establishments. The program will rely heavily on the cooperation of the tourism, whalewatching and marine recreation industry for successful implementation. Many of the commercial whalewatch vessels incorporate the onboard services of a naturalist to identify and discuss various species of cetaceans. The Sanctuary will work with these services to incorporate verbal information on the Sanctuary in their interpretive discussions, in addition to brochures or other printed materials which excursion participants may carry home with them. Local organizations and businesses, such as the Whale Museum, Pacific Whale Foundation, Save the

Whales, Whales Alive, Hawai'i Wildlife Fund, Earthtrust, Waikiki Aquarium, Sierra Club, and others may also be interested in co-sponsoring special excursions to the Sanctuary.

## ii. Visitor Center/Headquarters Programs

The establishment of a Sanctuary headquarters in the area and the existence of other visitor and information centers throughout Hawaii provide an opportunity to inform visitors to these sites about humpback whales and their habitat, and the Sanctuary program. Although most visitors and residents use Hawaii's marine waters for a variety of purposes, many do not fully understand or appreciate the significance of this national resource. Educational exhibits and brochures about the Sanctuary's resources can only help to enhance people's appreciation for the special qualities of this unique marine environment. Exhibits, audio-visual information, and printed materials will be available to the public at the Sanctuary visitor center/headquarters. Additional potential distribution points for Sanctuary brochures and other materials include NMFS's Honolulu Laboratory, Kilauea Point National Wildlife Refuge on Kauai, Kealia Pond NWR in Maui, at various national parks in Hawaii, Hanauma Bay MLCD and other aquariums, museums and environmental centers throughout Hawaii.

## iii. Outreach Programs

The Sanctuary educational program will aim to reach groups throughout the Hawaiian Islands and elsewhere who have an interest in Hawaii's marine environment, but who may not visit or experience the area first-hand. This project entails identifying these groups and making educational materials and presentations available to them.

These programs will be carried out in conjunction with similar local programs to provide off-site education. Where possible, the Sanctuary will involve coordinating the cooperative efforts of local and regional environmental education programs and organizations (e.g., Department of Education, DLNR, Waikiki Aquarium, University of Hawaii Sea Grant and Marine Options Programs, environmental organizations, and Native Hawaiian groups). Additionally, Sanctuary staff will make interpretive materials and presentations available to local and regional schools, universities and interested user groups. Materials may include slide presentations and traveling exhibits, curriculum materials and other teacher aids. Opportunities will be assessed for Sanctuary outreach locations in areas of heavy public visitation, such as highway scenic pull-offs, State parks and public docks.

## E. ADMINISTRATION

This section of the management plan describes the administrative roles of the Sanctuary, the SAC and the various agencies that will be involved in Sanctuary management. It also identifies strategies to coordinate their activities, and provides for periodic evaluation of the overall effectiveness of the management plan. Sanctuary management consists of five basic functions: resource protection (including enforcement), research, education, and administration. Administration oversees all other functions and establishes who is responsible for implementing specific programs. The administrative framework ensures that all management activities are coordinated.

SRD will develop a cooperative partnership with the State of Hawaii and NMFS to implement components of this Final Management Plan for the Sanctuary. SRD will coordinate its on-site activities through cooperative agreements and/or specific MOUs with existing Federal and State agencies, and non-governmental organizations, as appropriate. The general administrative roles of each agency are described below and listed in Part II(E)(3) of this Final EIS/MP.

## 1. Site Administration

The NMSP is administered by SRD. SRD is headquartered in Silver Spring, Maryland, and has on-site Sanctuary staff that are responsible for managing each of the individual sanctuary sites. SRD works with the on-site Sanctuary Manager to develop a site budget and implement program policies on the local level. Funding priorities will be reviewed and adjusted annually to reflect evolving conditions in the HIIHWNMS and NMSP priorities and requirements. SRD also establishes policies and procedures in response to specific issues in each Sanctuary. Detailed SRD responsibilities are listed under the resource protection, research, education/interpretation, and general administration sections which follow.

Depending on the budget and personnel assigned to the HIIHWNMS, staffing would include a NOAA Sanctuary Manager, an administrative assistant, a research coordinator, an education coordinator, a volunteer coordinator, and one or more interpreter/enforcement positions. Staff will be distributed between the headquarters office in Kihei, Maui, other satellite offices located on other islands, or within other State or Federal agencies. Arrangements may be made between various levels of government agencies and private sector organizations through cooperative agreements or MOUs to provide personnel and/or resources to carry out the duties associated with the coordinator positions. As an example, Sanctuary staff will work closely with NMFS, USCG, and the State of Hawaii, specifically with DOH, and DLNR to monitor harassment, discharge and alteration of the seabed activities in the proposed Sanctuary. The need for additional staffing will be determined during the first two years of Sanctuary operation.

The Sanctuary Manager and other field staff for the HIIHWNMS manage and operate the site. They report to the Pacific Regional Manager at NOAA-SRD Headquarters in Silver Spring, Maryland. In this capacity, the Manager represents SRD and is the primary spokesperson for the HIIHWNMS. The Sanctuary's headquarters is currently located at a NOAA-owned facility in Kihei, Maui. Additional Sanctuary contractors work in Honolulu and Kauai. The Sanctuary will continue to assess the need to create other "satellite" offices and information centers on other Hawaiian Islands.

## 2. Sanctuary Advisory Council

Under Section 315, (16 U.S.C. §1445a) of the NMSA, the Secretary of Commerce is authorized to establish sanctuary advisory councils (SAC) to provide assistance to the Secretary regarding the designation and management of national marine sanctuaries. In order to ensure that local concerns are addressed in the ongoing development and management of the Hawaii Sanctuary, SRD established a 25-member SAC in March 1996 (see Figure V-1 and Appendix D). The SAC has broad representation and has been instrumental in advising NOAA and the State on matters pertaining to the continued development of the Sanctuary. The SAC represents the coordination link between the Sanctuary and the many State and Federal management agencies, Native Hawaiians, user groups, researchers, educators, policy makers, and others which serve the function of focusing efforts and attention on the humpback whale and its habitat. In this capacity, the SAC is a critical part of the Sanctuary's identity and function because it provides a forum by which Sanctuary management issues can be raised and addressed in an ongoing and relatively informal manner, thereby enhancing the efforts of the Sanctuary in managing and protecting humpback whales and their habitat.

The SAC functions in an advisory capacity to the Sanctuary Manager and will be instrumental in helping produce annual operating plans and reports by identifying education, outreach, research, long-term monitoring, resource protection and revenue enhancement priorities. The SAC will also play an instrumental role in identifying marine resources and ecosystems of national significance for possible inclusion in the Sanctuary through a process outlined in Part V(c)(3) of the management plan. The SAC works in concert with the Sanctuary Manager by

keeping her or him informed about issues of concern throughout the Sanctuary, offering recommendations on specific issues, and aiding the Manager in achieving the goals of the Sanctuary program within the context of Hawaii's marine programs and policies. The SAC Charter details specific roles and responsibilities of the SAC (Appendix D).

In order to function efficiently in an advisory capacity and incorporate the different concerns from all the main Hawaiian Islands, the SAC may appoint subcommittees or working groups that correspond to the main Sanctuary management areas of education, research, resource protection, regulations/enforcement, revenue enhancement, and others as necessary. Additional subcommittees or working groups may be formed to provide recommendations to the SAC on the identification and assessment of other marine resources and ecosystems of national significance for possible inclusion into the Sanctuary.

Since its establishment, the SAC has met five times to provide advice and recommendations to NOAA on the public comments received on the DEIS/MP and on the continued development and management of the Sanctuary. The SAC has also elected a Chair, Vice Chair, and Secretary, and formed several subcommittees.

### 3. Other Federal Agencies

There are numerous Federal agencies that have significant resource management responsibilities in or near the Sanctuary. The Sanctuary will seek cooperative partnerships with these Federal agencies in order to better facilitate and streamline resource management in the Hawaiian Islands. The Sanctuary will also develop, as appropriate, MOUs to clarify and streamline coordination roles and permit review processes and other cooperative management projects. The Sanctuary will also seek other Federal agency participation to collectively sponsor and promote management related research and education projects. In particular, the Sanctuary will continue to work closely with NMFS to ensure more coordinated and comprehensive management of the humpback whale and its habitat. Other Federal agencies with resource management responsibilities include: EPA, USCG, COE, National Park Service, U.S. Fish and Wildlife Service, and DOD.

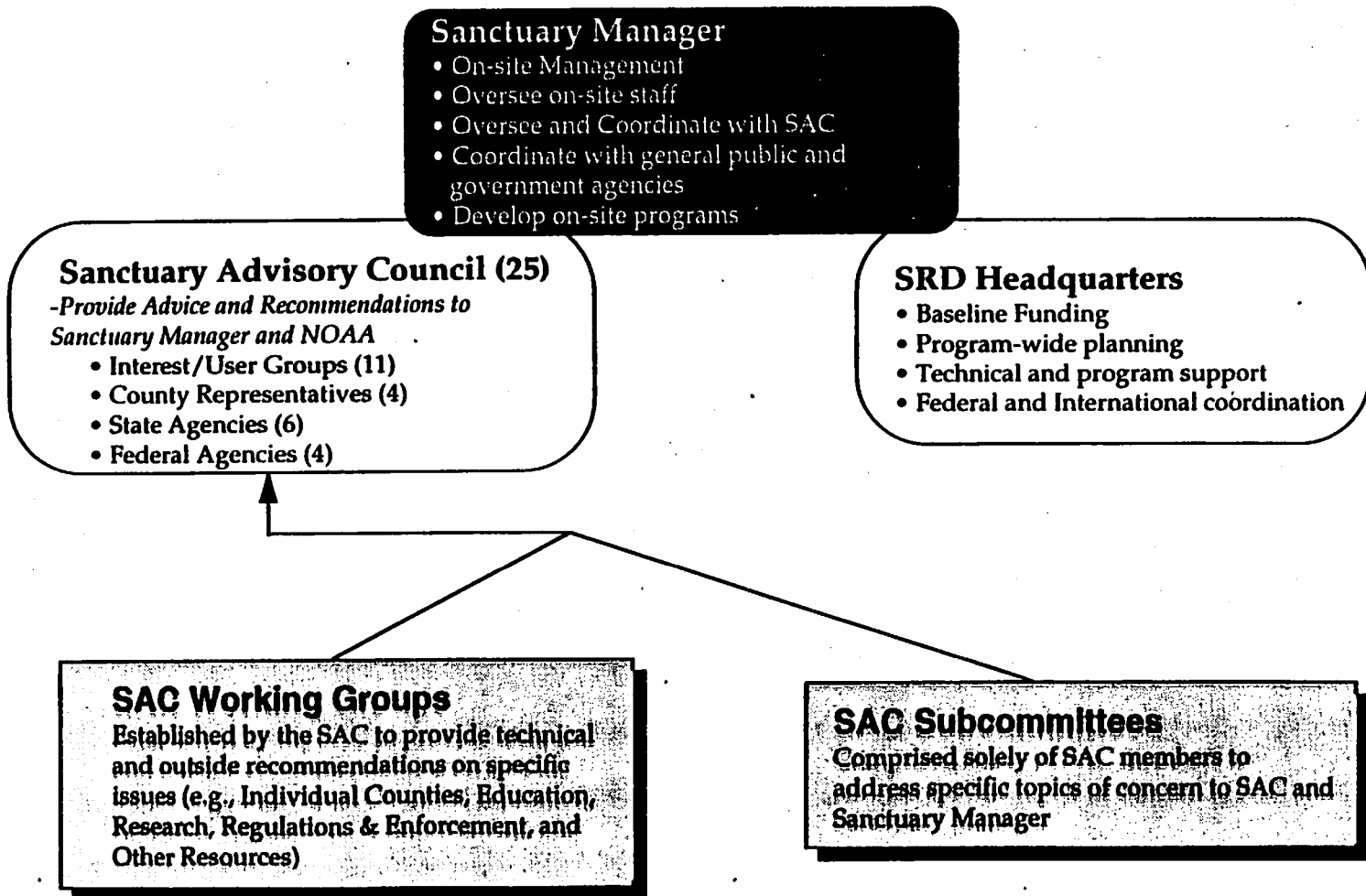
### 4. State, Regional, and County Agencies

Much of Hawaii's coastal waters are included within the boundary of the Sanctuary. SRD recognizes the importance of establishing strong partnerships with the many State and county agencies that have resource management responsibilities in the Sanctuary. The Sanctuary will work closely within the existing administrative framework of State resource management agencies such as: the State of Hawaii's OP; DLNR; DOH; DBEDT; DOT; OHA; KIRC; and the individual county planning offices. NOAA will also work closely with the Hawaii Coastal Zone Management Program (CZMP) to ensure wise management and protection of coastal resources, and to coordinate mutual objectives of the CZMP and the Sanctuary.



## Hawaiian Islands Humpback Whale NMS Sanctuary Administration

Figure V-1 Sanctuary Administration



The Sanctuary has worked in close partnership with OP and consulted with the 50 member SWG and the 25-member SAC, each composed of various Federal, State and county agencies and marine user groups to develop the draft and final environmental impact statement and Sanctuary management plan. SRD will continue this close partnership and look toward establishing other cooperative arrangements with other State and county agencies to ensure a coordinated approach to the coastal and ocean resource management responsibilities of all agencies. This cooperation will involve the formalization of cooperative agreements, MOUs and the deputization of state enforcement officials, as appropriate.

#### 5. Compatible Uses of the Sanctuary

An important element of the Hawaii Sanctuary's management program is the encouragement of public uses of the site that are compatible with the overall objective of long-term protection of Sanctuary resources.

**Sanctuary Goal:** Section 2306(a)(1) of the HINMSA specifically calls for the Sanctuary to:

"Facilitate all public and private uses of the Sanctuary (including uses of Hawaiian natives customarily and traditionally exercised for subsistence, cultural, and religious purposes) consistent with the primary objective of the protection of the humpback whale and its habitat"

**Sanctuary Objectives:** To meet this goal, and to foster compatible uses, the Sanctuary will initiate the following activities:

- Develop educational materials and programs aimed at enhancing public awareness and appreciation for the humpback whale and its winter habitat, and for other Sanctuary resources, and demonstrate the need for their protection;
- provide relevant information about Sanctuary regulations and use policies;
- exchange information with pertinent agencies and interested user groups on commercial and recreational activities and opportunities occurring within the Sanctuary;
- collaborate with public and private organizations in encouraging and promoting compatible uses of the Sanctuary;
- consult with other agencies on proposals and policies for management of activities which may affect Sanctuary resources;
- work with the Native Hawaiian Community to identify customary and traditional uses of the marine environment and educate the general public about these uses; and
- monitor and assess the levels of use to identify and control potential degradation of resources, and to minimize potential user conflicts.

Anticipated monitoring and information exchange programs are discussed below under Research (Section III); development of public materials is discussed below under Education/Interpretation (Section IV).

Section 2306 of the HINMSA directs NOAA to develop a Sanctuary Management Plan that, among others, "facilitates all public and private uses of the Sanctuary (including uses of Hawaiian natives customarily and traditionally exercised for subsistence, cultural, and religious purposes) consistent with the primary objective of the protection of humpback whales and their habitat." NOAA has not promulgated any regulations that would independently prohibit, restrict or regulate fishing, subsistence gathering or any other access to the water or the Sanctuary resources. NOAA will work with the Native Hawaiian community to develop joint education and research projects that facilitates their use of the marine environment and increases the general public's understanding of their practices and culture.

NOAA will work closely with Native Hawaiian interests to facilitate Native Hawaiian uses of the marine environment customarily and traditionally exercised for subsistence, cultural, and religious purposes consistent with the primary objective of the protection of humpback whales and their habitat. SRD recognizes the ongoing efforts of the Native Hawaiian sovereignty movement for self-governance and will continue discussions with Native Hawaiian and State officials throughout this process to acknowledge and facilitate Native Hawaiian uses within the Sanctuary, and initiate efforts to work cooperatively with Native Hawaiian groups to educate other members of the public about their cultural, traditional and historical relationship to Hawaii's marine environment.

#### 6. Five Year Review of Management Plan

The NMSA requires NOAA to periodically review sanctuary management plans and make changes as necessary. During the five years following implementation of the final management plan, SRD, in cooperation with the State, will conduct research on humpback whales and their habitat, assess the adequacy of Sanctuary regulations, the adequacy of existing authorities in protecting the humpback whale and its habitat, and the adequacy of the Federal-State partnership in protecting the whale and its habitat. The SAC will be encouraged to establish a working group on resource protection to review existing authorities and monitor the effectiveness of these authorities in protecting the humpback whale and its habitat.

By the time of the five-year review of the Management Plan, SRD should also have completed its process to identify other resources of national significance (e.g., other marine species and ecosystems, cultural or historical resources) for possible inclusion in the Sanctuary. Based on these assessments, SRD may revisit and revise the management plan, including the regulations to include other resources into the Sanctuary. Any proposed change to the Designation Document (e.g., new regulations or boundary modification) is required to be executed by the same procedures by which the original was developed, including preparing an environmental impact statement, holding at least one public hearing, and providing for gubernatorial review and non-objection to the changes. Any proposed substantive (those which are not procedural, administrative, technical, or editorial in nature) amendment to the existing Sanctuary regulations will also require public review, and be subject to review, and non-objection by the Governor. An outline of the five-year management plan review can be found on the following page.

#### 7. Special Use Permits

NOAA is not proposing to implement special use permits in the Hawaii Sanctuary. The HIIHWNMS regulations contain no requirements for obtaining independent Sanctuary permits or approvals, including special use permits. Special use permits would only be implemented through changing the HIIHWNMS regulations to independently prohibit a certain activity unless authorized under a special-use permit. Such a regulatory change, however, would require notice and comment to the public, and review and non-objection by the Governor of Hawaii.

## **Review of the Sanctuary Management Plan**

### **Evaluation**

- (1) Not more than five years after the final management plan and regulations become effective, and subsequently not more than every consecutive five years thereafter, SRD, in consultation with the Governor of Hawaii, shall evaluate the progress made toward implementing the management plan, regulations, and goals for the Sanctuary.
- (2) In evaluating the management plan, regulations, and goals for the Sanctuary, SRD, in consultation with the Governor, shall specifically address the following issues:
  - Sanctuary resource protection measures, including Sanctuary regulations and enforcement;
  - The effectiveness of the Sanctuary boundary in achieving the purposes of the HINMSA and NMSA, and in meeting ongoing State resource management concerns;
  - Sanctuary education, information, and outreach program;
  - Sanctuary research and long-term monitoring program;
  - Sanctuary coordination and cooperation with other Federal, State, and county agencies;
  - Native Hawaiian uses of the Sanctuary;
  - Public involvement in Sanctuary management;
  - Positive and negative socio-economic impacts on marine users, including, but not limited to the following industries, groups, and/or organizations: commercial and recreational fishing, shipping and transportation, ocean recreation, whale watching, tourism, education, research, and conservation; and
  - The effectiveness of the Sanctuary in facilitating all public and private uses of the Sanctuary consistent with the primary objective of the protection of humpback whales and their Sanctuary habitat.

### **Results of Evaluation**

- (1) The results of the evaluation shall be used by SRD, in consultation with the Governor, to determine whether changes to the management plan and/or regulations are necessary, and to revise the management plan and/or regulations accordingly.
- (2) NOAA/SRD shall submit the final revised management plan and regulations for the Sanctuary to the Committee on Commerce, Science and Transportation of the Senate and to the Committee on Resources of the House of Representatives.

### **Gubernatorial Review of Modifications to the Designation Document or Existing Regulations**

- (1) Any proposed change to the Designation Document (e.g., new regulations or boundary modification) is required to be executed by the same procedures by which the original was developed, including preparing an environmental impact statement, holding at least one public hearing, and providing for gubernatorial review and non-objection to the changes. Any proposed substantive (those which are not procedural, administrative, technical, or editorial in nature) amendment to the existing Sanctuary regulations will also require public review, and be subject to review and non-objection by the Governor.

**8. Resource Protection: Roles and Responsibilities****a. SRD**

- Approves priorities for funding for resource protection and monitors and maintains a record of research activities within the sanctuary;
- Monitors the effectiveness of interagency agreements for surveillance and enforcement and negotiates changes where required;
- Develops contingency and emergency-response plans and based on these plans, negotiates applicable interagency agreements;
- Monitors the effectiveness of existing Sanctuary regulations and promulgates changes, in conjunction with the State, where necessary;
- Coordinates efforts to protect and manage Sanctuary resources with other Federal, State, and county agencies, and with public and private organizations; and
- Ensures involvement of commercial and recreational marine interests in Sanctuary resource protection issues, through their participation on the SAC and by other appropriate means.

**b. Sanctuary Manager**

- Develops priorities for the allocation of funds annually to support resource protection efforts, considering the advice of the SAC and relevant groups to ensure consistency with the Sanctuary Management Plan;
- Coordinates regularly with commercial and recreational marine users, primarily through the SAC, on resource protection issues affecting these users;
- Assists, in the conjunction with the designated Sanctuary enforcement officer, the coordination of surveillance and enforcement activities by providing liaison with the Federal, State, regional and county agencies;
- Reports regularly to the SRD on surveillance and enforcement activities, and emergencies;
- Provides information for use in training Sanctuary enforcement officials;
- Monitors and evaluates the adequacy of emergency-response plans and procedures in the Sanctuary;
- Maintains a record of emergency events (e.g., oil spills) in and around the Sanctuary;
- Evaluates overall progress toward the resource protection objectives of the Sanctuary program and prepares semi-annual and bi-monthly progress reports highlighting activities for the SRD; and
- Coordinates with existing Federal, State, and county groups such as the Marine and Coastal Zone Management Advisory Group (MACZMAG) or DLNR groups.

c. Sanctuary Advisory Council

- Advises the Sanctuary Manager on the effectiveness of interagency agreements for surveillance and enforcement;
- Advises the Sanctuary Manager on the effectiveness of the Sanctuary regulations in providing adequate resource protection;
- Recommends improved methods of resource protection; and
- Establishes working groups and/or subcommittees on such topics as research, education, resource protection, enforcement, or as needed, to provide technical advice and recommendations.

d. Federal Agencies

- NMFS implements the MMPA, provisions of the ESA and participates in consultation as required under the Fish and Wildlife Coordination Act. NMFS works closely with DLNR-Division of Aquatic Resources, under the Magnuson Fishery Conservation and Management Act (MFCMA), on approving and enforcing Fishery Management Plans (FMPs) prepared by WESPAC to ensure protection of fishery resources;
- USCG holds broad responsibility for enforcing all Federal laws throughout the Sanctuary, including coordination with NMFS on enforcement of Fishery Management Plans. USCG also provides on-scene coordination and Regional Response Center facilities under the National Contingency Plan for the removal of oil and hazardous substances in the event of a spill that threatens Sanctuary resources;
- EPA implements regulatory responsibilities regarding sewage outfalls (Clean Water Act, via the NPDES permits); and ocean dumping [Title I of the MPRSA] to protect water quality. EPA has delegated NPDES permitting responsibilities to DOH;
- COE grants, based on EPA guidelines, permits for disposal of dredged materials at EPA-designated disposal sites, and monitors the effects of disposal activities. The COE also grants permits (under the Rivers and Harbors Act) for marine construction, excavation or fill activities in any navigable waters of the U.S. The COE may refuse to issue permits on the basis of threats to navigation or potential adverse effects on the environment; and
- Minerals Management Service leases and permits (under the Outer Continental Shelf Lands Act) marine mining activities for resources other than hydrocarbon resources, subject to safety and environmental regulations.

e. State, Regional, and County Agencies

- OP provides oversight for individual county planning efforts and for statewide initiatives. OP also oversees the implementation of the Hawaii CZMP by coordinating the planning, policy development, and implementation activities of other State agencies and county governments; is developing and implementing the §6217 Coastal Non-Point Source Pollution Control Program; and in certain geographic areas, issues permits for the protection of coastal resources and the management of orderly economic development throughout the coastal zone. In addition, the 1995 Hawaii Legislature gave OP a new responsibility for coordinating and implementing the 1991 Ocean Resources Management Plan.
- DLNR is responsible for managing living and historic resources (such as fisheries and historic sites), and protected areas such as State parks, Marine Life Conservation Districts, Natural Areas Reserves, and State forests. DLNR has jurisdiction over all state owned lands and submerged lands and has adopted regulations for the protection and use of public trust lands and resources in the

- coastal zone. DLNR-DOCARE officers are deputized to enforce all state laws and specific Federal laws throughout the sanctuary (e.g., MMPA, ESA, MPRSA);
- The State Historic Preservation Office, within DLNR, is the State agency responsible for the preservation of representative and unique archaeological, paleontological, and historical sites in the land and water areas of the state;
  - DBEDT oversees ocean industry and recreation development and is, in part, responsible for ocean energy resources development and management;
  - DOH:
    - a) regulates and monitors water quality for all nearshore coastal waters under state jurisdiction. DOH is also working with CZMP to develop and implement the statewide Coastal Non-Point Pollution Control Program;
    - b) is charged with the maintenance and enhancement of the ambient air quality of the State. DOH has set air quality standards designed to meet National Ambient Air Quality Standards; and
    - c) the Office of Hazard Evaluation and Emergency Response provides on-scene coordination of State clean-up response in the event of an accidental oil spill or hazardous materials which threaten the State's fish and wildlife resources.
  - DOT oversees commercial and recreational ports and harbors, and boating activity in Hawaii.
  - The Department of Agriculture (DOA) is responsible for controlling non-indigenous species importation, and implementing various non-point source pollution programs in Hawaii;
  - OHA is responsible for overseeing Native Hawaiian issues and administering programs;
  - KIRC oversees the restoration and management of the Island of Kahoolawe and its waters out to two nautical miles;
  - OP, DLNR, DOH, DOA, DOT, and the Office of Environmental Quality Control monitor the effectiveness of State regulations within the Sanctuary and consider recommended changes to the State regulations through the State Legislature and the Governor's Office; and
  - The individual counties are responsible for creating and implementing county wide land use and recreation plans; implementing the CZMP, specifically the Special Management Area permits for development activities; implementing erosion and sedimentation programs; and operating municipal sewage treatment facilities.

## 9. Research: Roles and Responsibilities

### a. SRD

- Reviews and approves annual SRPs and budgets prepared by the Sanctuary Manager for research activities in each Sanctuary based upon the purposes and goals of the National Research Plan (NRP);
- Sets dates for contracts and procurements based on the SRP and the NRP;
- Administers interagency agreements and contracts for research;
- Reviews all interim and final research reports submitted by the Sanctuary Manager and permitted researchers/contractors; and
- SRD and NMFS have developed a MOU to streamline the review and issuance of permits issued under the MMPA and ESA for activities that affect the Sanctuary. SRD and NMFS use the existing permit process to satisfy requirements for both programs.

**b. Sanctuary Manager or Research Coordinator**

With assistance from the SAC's Research Working Group and the Pacific Coast Regional Scientific Review Group (established pursuant to the 1994 MMPA reauthorization), the Sanctuary Manager will:

- Recommend areas of research to resolve management issues and prepares Request for Proposals (RFP's);
- Develop and implement the SRP;
- Review research documents and progress reports submitted by researchers and contractors;
- Prepare assessments of research needs and priorities based on management requirements and research continuity;
- Provide recommendations to SRD for the annual research component of the overall Sanctuary Budget;
- Implements the SRP;
- Coordinates research and monitoring activities in the Sanctuary in cooperation with the SRD and other interested agencies or parties;
- Coordinates an on-site process for reviewing and evaluating research proposals and permit requests, considering the views of the SRD and concerned individuals and interest groups;
- Submits to NMFS suggested recommendations and conditions on permit applications and requests for authorizations under the MMPA or ESA; and
- Coordinates Sanctuary-sponsored research in the Sanctuary.

**c. Sanctuary Advisory Council (Research Working Group)**

- Advises the Sanctuary Manager on review of research proposals, interim, and final reports; and
- Advises the Research Coordinator and the Sanctuary Manager on priority research needs.

**10. Education/Interpretation: Roles and Responsibilities**

**a. SRD**

- Reviews and approves the list of annual priorities for education and the annual education budget prepared by the Sanctuary Manager;
- Reviews and approves design proposals for all educational facilities;
- Reviews all educational/ interpretive materials prepared for the Sanctuary; and
- Evaluates progress toward accomplishing objectives for education/interpretation, and adjusts long- term priorities accordingly.

**b. Sanctuary Manager or Education Coordinator**

With assistance from the SAC's Education Working Group, the Sanctuary Manager will:

- Recommend annually to SRD a list of priorities and an annual budget for education;
- Prepare and circulate as required Requests for Proposals (RFPs) for educational/interpretive projects;
- Supervise the design and production of educational/ interpretive materials and facilities for the Sanctuary;
- Make available training for educational staff assigned to the Sanctuary;
- Encourage local and regional organizations to participate in Sanctuary education;



- Disseminate information about the NMSP and the Sanctuary;
- Oversee the development of any facilities constructed for the Sanctuary, review site analyses and design specifications, make recommendations as to construction and maintenance contracts, and perform similar tasks;
- Coordinate Sanctuary-sponsored educational/ interpretive activities; and
- Establish quality product standards for in-house and contracted educational products.

c. Sanctuary Advisory Council (Education Working Group)

- Advises the Sanctuary Manager in efforts to raise public awareness of the Sanctuary and advises on the development of an informed local constituency by means of brochures, presentations, structured events, articles for publication, and other activities consistent with the management plan; and
- Advises the Education Coordinator and the Sanctuary Manager on priority education and outreach needs;

**11. Site Administration: Roles and Responsibilities**

a. SRD

- Ensures that the Sanctuary is operated in a manner consistent with established National Program policies and with applicable national and international laws, and provides guidance to the Sanctuary Manager and the SAC;
- Identifies, analyzes, and resolves major Sanctuary management problems and issues that have National Program implications;
- Formulates comprehensive, long-term management plans for the Sanctuary and revises the Management Plan as necessary;
- Directs and assists the Sanctuary Manager in the implementation of the Management Plan;
- Coordinates Sanctuary management with other Federal and State agencies and private organizations;
- Evaluates the effectiveness of Sanctuary management and regulatory measures;
- Prepares a program budget for the Sanctuary based upon recommendations from the Sanctuary Manager;
- Provides funding for overall Sanctuary management and administration; and
- Makes recommendations to the Director of the OCRM as to the actions the agency may need to take in regards to controversial projects that could impact or injure Sanctuary resources.

b. Sanctuary Manager

- Coordinates on-site efforts of all parties involved in Sanctuary activities, including State, Federal, and county agencies, and the public;
- Reviews the management plan periodically and recommends changes to SRD as needed;
- Prepares site budget for submission to SRD for approval and funding;
- Oversees day-to-day operation of the Sanctuary, including administrative functions such as bookkeeping, purchasing, and keeping records of visitor activities;
- Supervises Sanctuary staff and other personnel, including education, research, and enforcement employees assigned to the Sanctuary;
- Represents the Sanctuary viewpoint on local issues and at public forums; and
- Consults and works within the permit review processes of other agencies to ensure humpback whale and habitat concerns are considered.

c. Sanctuary Advisory Council

- Advises on the specific plans for Sanctuary development;
- Advises on proposals for activities within the Sanctuary;
- Advises on an overall plan for the use, development and maintenance of Sanctuary lands and facilities; and
- Advises the Sanctuary Manager on projects and activities that may impact Sanctuary resources.
- Advises the Sanctuary Manager on actions that should be taken to improve effective management of the resources.

d. Federal, State, and County Agencies

- Assists in the preparation and implementation of a comprehensive, long-term management plan for the Sanctuary;
- Assists in the periodic review of the management plan; and
- Appropriate permit issuing agency considers Sanctuary comments and recommendations on projects that may impact Sanctuary resources.

## F. REVENUE AND RESOURCE ENHANCEMENT

Section 2306 (a)(4) of the HINMSA requires that the Sanctuary Management Plan "identify alternative sources of funding needed to fully implement the plan's provisions and supplement appropriations under Section 2307 of the Act." Section 311 of the NMSA provides several mechanisms for the Sanctuary to utilize alternative voluntary sources of funding to work with other government agencies and non-profit organizations to implement the Management Plan's provisions [NMSA §1422(a)-(d)]. These include:

- NOAA may enter into cooperative agreements, financial agreements, grants, contracts, or other agreements with States, county governments, regional agencies, interstate agencies, or other persons to carry out the purposes and policies of the HINMSA and NMSA.
- NOAA may enter into such agreements with any nonprofit organization authorizing the organization to solicit private donations to carry out the purposes and policies of the HINMSA and NMSA.
- NOAA may accept donations of funds, property, and services for use in designating and administering national marine sanctuaries. Donations accepted under this section shall be considered as a gift or bequest to or for the use of the United States.
- NOAA may acquire by purchase, lease, or exchange, any land, facilities, or other property necessary and appropriate to carry out the purposes and policies of this title.

Revenue enhancement in terms of Sanctuary management means supplementing baseline funding levels for the purpose of conserving and managing Sanctuary resources. Revenue enhancement may include, but is not limited to: the creation of partnerships with government and/or private-sector organizations; support through foundations; donations of property or funds; product marketing; corporate sponsorships; volunteer user fees; internships; volunteer opportunities; and other innovative fundraising initiatives. *The Sanctuary recognizes significant public opposition to mandatory user fees and is not proposing mandatory broad-based user fees to supplement baseline funding.* This is consistent with the recommendations of a "Marine Sanctuary User Fee Workshop" held in Monterey, CA during November, 14-16, 1994, which reaffirmed support for the Sanctuary Program, but called for the immediate abandonment of using mandatory user fees to supplement program funding. Further, the 1996 reauthorization of the NMSA provides a *statutory provision against mandatory user fees for any activity within or use of the*

**Sanctuary.** Public involvement will play an essential role in planning and implementing any revenue enhancement efforts.

The NMSP will continue to pursue revenue enhancement measures for individual sites and the national program. The NMSP faces the huge challenge of protecting and managing some of the nation's most cherished coastal and marine resources. This effort does not come without costs, and in today's challenging budget times, the Program must consider every available funding option. NOAA will work with the local community to develop and implement creative measures to supplement the NMSP's base funding levels. NOAA believes that sanctuary users appreciate the practical need for increased funding to better manage and protect Sanctuary resources.

Another example of a revenue enhancement measure is the National Marine Sanctuary Logo Pilot Project. In 1992, Congress directed the Sanctuary Program to enhance funding for the designation and management of National Marine Sanctuaries through a pilot project consisting of the creation, adoption, and marketing of a logo. Section 2204 of the NMSA directed the Sanctuary Program to solicit and designate official sponsors of the Program or of individual sanctuaries. These sponsors would be authorized to manufacture, reproduce, or use the logo. A national design and selection process resulted in the official approval of the whale's tail logo pictured below. This logo was published in the *Federal Register* on March 28, 1995. The Sanctuary Program has Congressional authorization to sell "rights" or uses of the logo and retain the funds to enhance and manage National Marine Sanctuaries. In the 1996 reauthorization of the NMSP, the logo program was made a permanent provision of the NMSA.



NATIONAL MARINE  
SANCTUARIES

It is anticipated that identifying and using alternative sources of funding will be a continuing activity, to meet and support the stated purposes of the management plan [see A(2)(a) of the MP, "Purposes of the Management Plan"]. The Sanctuary will work cooperatively with the State of Hawaii, the SAC, and interested organizations and individuals to identify and establish innovative and creative solutions to enhance funding for Sanctuary programs. The HIHWNMS will seek opportunities to develop cooperative agreements and partnerships with government agencies and the private-sector; establish or work with existing non-profit organizations to help the Sanctuary carry out the programs and purposes of the Sanctuary; and continue efforts to initiate other forms of revenue enhancement and program support measures. For example, the Hawaii Sanctuary has already developed numerous partnerships with other government and private sector organizations. Such partnerships have included the cooperative public/private venture to develop the "*Watching Hawaii's Humpback Whales*" brochure; the development of a pocket humpback whale information/approach regulation guide; cooperatively developed education displays and materials with other organizations and museums; and the acquisition of Federal property in Kihei for the Maui Sanctuary office. Opportunities to creatively enhance baseline revenues and staff resources without mandatory fees are abundant.

## PART VI: LIST OF PREPARERS

### Final Environmental Impact Statement and Management Plan (FEIS/MP):

**Mr. Brady Phillips:** Program Specialist, Sanctuaries and Reserves Division (SRD). Mr. Phillips was responsible for compilation of the Final EIS/MP, including writing, editing, policy development and analysis, and assembling the individual components. He also was the primary coordinator for the Draft EIS/MP team. He has worked on the development of the Hawaii Sanctuary since February 1993. He also is the SRD headquarters contact for the Fagatele Bay NMS in American Samoa, and has experience in helping develop an island-wide resource management program in Kosrae, Federated States of Micronesia. He has a B.S. in Zoology and Environmental Studies from the University of Wisconsin-Madison, and a M.S. in Marine Resource Management from Oregon State University.

**Mr. Brian Burnett:** Consultant, SRD. Mr. Burnett assisted Mr. Phillips in compiling the Final EIS/MP, including policy analysis, writing, editing, formatting, and assembling components, as well as coordinating the internal review/clearance process. He has worked on the development of the Hawaii Sanctuary since its Congressional designation in November 1992, though the majority of that time was spent working for the Hawaii Office of State Planning (OSP). As part of OSP, he was one of the lead State contacts throughout the development of the Draft EIS/MP and the initial stages of the Final EIS/MP. His B.A. is a double major in Political Science and Economics from the University of Hawaii at Manoa.

**Ms. Nina Garfield:** Program Specialist, SRD. Ms. Garfield was responsible for reorganizing Part 1 of the Draft EIS/MP for the Final EIS/MP. She also assisted in the writing, editing, and final policy analysis of various aspects of the document. She has a B.A. in Sociology and Psychology from Kalamazoo College in Kalamazoo, Michigan, a M.S. in Marine Affairs from the University of Rhode Island, and course work in Chemistry and Physics at the University of Pittsburgh, and Mariculture at the Marine Biological Laboratory in Woods Hole, Massachusetts.

**Ms. Naomi McIntosh:** Consultant, SRD. Ms. McIntosh wrote and updated significant portions of Part II, as well as provided guidance on policy issues. She has worked with SRD since March 1994. As the Oahu contact, she interacts closely with other agencies, user groups, and the public to provide information about the Hawaii Sanctuary and to raise awareness on the importance of protecting humpback whales and their habitat. She has previously worked at the Kewalo Basin Marine Mammal Laboratory and the Naval Ocean Systems Center. She has a B.A. in Psychology from the University of Hawaii and a Certificate of Completion in Environmental Studies also from the University of Hawaii.

**Mr. Allen Tom:** On-site Program Specialist and liaison. Mr. Tom is responsible for coordinating daily activities of the Hawaii Sanctuary including the other Sanctuary contractors on Oahu, Kauai and Maui. Mr. Tom assisted in developing the FEIS/MP by coordinating public outreach and awareness efforts, response to public comments, on-site policy development, the Sanctuary Advisory Council, and other State and Federal government agencies. He has a B.S. in Biology from the University of California, Davis and a M.S. in Animal Science (Aquaculture) from the University of Hawaii.

### Draft EIS/MP:

**Mr. Ben Mieremet:** International Affairs Specialist, Policy Coordination Division in the Office of Ocean and Coastal Resource Management. Mr. Mieremet had co-lead responsibility for the preparation of the Draft EIS/MP. He is the principal author of 12 previous EISs, numerous

environmental assessments on coastal related issues, and 20 years experience in coastal zone management. He has a B.S. in Conservation and Resource Development from the University of Maryland, a M.A. in Water Resources Management from the University of Michigan, and a M.A. in International Relations from Salve Regina College in Rhode Island.

**Ms. Janice Sessing:** Formerly the Hawaii On-site Program Specialist, SRD. Ms. Sessing shared responsibility for the preparation of the Management Plan (Part V) and obtained input from Federal, State, and local agencies, interested public, and Sanctuary user groups used to develop management alternatives. Ms. Sessing has represented NOAA at the domestic and international level on various marine and environmental topics. Her B.S. is a double major in Marine Science and Biology, with a Chemistry minor from the University of Miami, Florida and a M.S. from the University of Hawaii at Manoa.

**Ms. Sherrard Foster:** Program Specialist, SRD. Ms. Foster shared responsibility for the preparation of the Management Plan (Part V) and for coordinating the internal Draft EIS/MP review/clearance processes. She holds a B.A. in English, with a minor in Biology, from Lynchburg College, Lynchburg, Virginia. Before joining SRD in 1984, she served as Director of Marine Issues, Defenders of Wildlife, Inc., Washington, D.C.

**Mr. David Kennard:** Economic Development Planner with experience as a consultant on environmental and economic development issues in the Pacific. Assisted the drafting team through the Pacific Basin Development Council to provide much of the socio-economic data found in Part II.

**Dr. Michael Hamnett:** Senior Policy Analyst with the Pacific Basin Development Council has 25 years of policy research, technical assistance, and training experience in the Pacific island region. Among his many experiences, he was a member of the planning team that drafted the Hawaii Ocean Resources Management Plan during 1989-90. He provided information on Hawaii's State authorities described in Part II.

#### ACKNOWLEDGMENTS

*Mahalo Nui Loa* to all the numerous persons who contributed their time, patience, and expertise to help complete various portions of this Final EIS/MP and of the Draft EIS/MP before it:

**NOAA-SRD (Hawaii):** Special thanks go to the Hawaii Sanctuary on-site staff -- Ms. Carol Carey, Ms. Jean Nishida Souza, Ms. Tori Cullins, Ms. Kellese Araki, and all the Hawaii Sanctuary volunteers in Maui -- for their invaluable input and encouragement. Finally, mahalo to the Hawaii Sanctuary Advisory Council for assisting SRD in developing responses to comments received on the Draft EIS/MP.

**NOAA-SRD (Silver Spring):** Mr. Jim Lawless, who was instrumental in guiding the project along as Acting Division Chief and who served as hearings officer during the public hearings on the Draft EIS/MP. Ms. Debra Malek and Ms. Nina Mollet, for extensive policy development and editing assignments. Also, mahalo to everyone at SRD who helped develop various management alternatives for the site. Many thanks also go out to Ms. Jacqueline Rousseau, Mr. Ralph Lopez, Mr. Steve Olson, and Mr. Christopher Evans who initially worked on the development of this Sanctuary.

**NOAA-Office of General Counsel:** This document has greatly benefited from the continual input and advice of Mr. Michael Weiss. Also, the assistance of the rest of NOAA's Office of General Counsel (GCOS, GCEL, GCF, GCNR, and GCSW), especially that of Ms. Margo Jackson and Mr. Roger Eckert, in the preparation of portions of the Management Plan and Implementing

Regulations and the review of both the Draft and the Final EIS/MP is gratefully acknowledged.

NOAA-National Marine Fisheries Service: Mahalo to Mr. Gene Nitta, Mr. Jim McCallum, Mr. John Naughton, Mr. Michael Payne, Ms. Margaret Lorenz, and Ms. Carol Fairfield who have all greatly contributed to the development of this Sanctuary.

Hawaii Office of Planning: The assistance and policy recommendations of Mr. Richard Poirier and Mr. Rick Egged were invaluable and contributed greatly to completion of this document. Many thanks also go to Ms. Ivy Kawakami for her diligent assistance with geographic information system work.

Much of the technical information presented in Part II was prepared in "A Site Characterization Study for the Hawaiian Islands Humpback Whale National Marine Sanctuary," March 1994 which was developed under contract to SRD. We gratefully acknowledge the scholarly contributions of Ms. Kathleen Aki, Dr. Richard Brock, Ms. Jacqueline Miller, Dr. Joseph R. Mobley, Jr., Mr. Peter J. Rappa, Mr. David Tarnas, and Ms. Michelle Yuen.

In addition, Mr. Steven Quarterman, Mr. David Konisky, Ms. Liz Spees, Ms. Karen Brubeck and Ms. Liz Perkinson greatly contributed to the completion and editing of the Draft and Final EIS/MP.

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## **PART VII: LIST OF AGENCIES AND ORGANIZATIONS RECEIVING COPIES OF THE FINAL EIS/MP**

### **FEDERAL AGENCIES**

Advisory Council on Historic Preservation  
Council on Environmental Quality  
Department of Agriculture  
Department of Commerce

- National Marine Fisheries Service -  
Office of Enforcement  
Office of Protected Species  
Southwest Regional Office  
Pacific Area Office  
National Marine Mammal Laboratory

Department of Defense

- Adjunct General Office
- Department of the Air Force
- Department of the Army
- Department of the Army/Corps of Engineers
- Department of the Navy/Marines
- Pacific Missile Range Facility - Kauai

Department of the Interior

- Fish and Wildlife Service
  - Kealia Fishpond NWR
  - Kilauea Pt. NWR
- National Park Service
  - Haleakala National Park
  - Volcanoes National Park

Department of State  
Department of Transportation

- U.S. Coast Guard

Environmental Protection Agency

- Region 9
- Pacific Regional Office

Federal Emergency Management Agency  
Marine Mammal Commission  
Western Pacific Regional Fishery  
Management Council

### **CONGRESSIONAL**

Honorable Daniel K. Akaka, U.S. Senate  
Honorable Daniel K. Inouye, U.S. Senate  
Honorable Neil Abercrombie, U.S. House of Representatives  
Honorable Patsy T. Mink, U.S. House of Representatives  
Honorable Diane Fienstien

### **HAWAII STATE GOVERNMENT AGENCIES**

Commission on Employment  
Department of Agriculture  
Department of Business, Economic, Development and Tourism  
Department of Defense  
Department of Education  
Department of Land and Natural Resources

- Division of Aquatic Resources
  - Aquaculture Development Program
- Division of Conservation and Resources Enforcement
  - Division of Parks

Department of Health  
Department of Public Safety

- Marine Patrol

Department of Transportation  
Kahoolawe Island Reserve Commission  
Office of the Attorney General  
Office of Environmental Quality  
Office of the Governor  
Office of Hawaiian Affairs  
Office of the Lt. Governor  
Office of Planning

- Coastal Zone Management Program

State Public Library - Hawaii  
University of Hawaii

- Center for Hawaiian Studies
- Environmental Center
- Research Corporation of Hawaii
- Hamilton Library Collection
- Leeward Community College
- Kauai Community College
- Maui Community College
- UH Hilo Library
- Marine Options Program
- Seawords Editor
- School of Public Health
- Hawaii Ag. Research Center
- Sea Grant Extension / Communication
- Richardson Law School

### **HAWAII COUNTY GOVERNMENT AGENCIES**

Mayor's Offices (Kauai, Oahu, Maui,  
Hawaii)  
City and County of Honolulu Planning Office



•Wastewater Department  
County of Hawaii Planning Office  
County of Kauai Planning Office  
County of Maui Planning Office  
Representative Nestor Garcia  
Representative Ken Hiraki  
Representative Calvin Kawamoto  
Representative Alex Santiago  
Representative David Tarnas  
Representative Cynthia Theilen  
Senator Rossalyn Baker  
Councilmember Duke Bainum  
Councilmember Steve Holmes  
Councilmember James Arakaki  
Councilmember Patrick Kawano  
Councilmember Alice Lee  
Councilmember Wayne Nishiki  
Councilmember Sol Kaho'ohalahala  
Councilmember Al Smith  
Councilmember Lloyd Can De Car

#### **NATIONAL INTEREST GROUPS**

Albright College - Biology  
American Cetacean Society  
American Fisheries Society  
American Protection of the Cruelty to Animals  
American Oceans Campaign  
Boating Industry Association  
Cascadia Research Collective  
Center for Action Endangered Species  
Center for Law and Social Policy  
Center for Marine Conservation  
Center of Whale Research  
Cetacean Society  
Coast Alliance  
Cornell University  
Defenders of Wildlife  
EDAW, Inc.  
Environmental Defense Fund, Inc.  
Environmental Law Institute  
Environmental Policy Center  
FEDECAS - Columbia  
Findhorn Foundation  
Friends of the Earth  
Great Barrier Reef Marine Park - Library  
The Greenpeace Foundation  
Hatfield Marine Science Center  
Hubbs Sea World Research Institute  
International Bird Rescue  
International Medcom  
LEROS  
Marine Mammal Commission

Moss Landing Marine Labs  
National Association of Conservation Districts  
National Association of Counties  
National Audubon Society  
National Federation of Fishermen  
National Fisheries Institute  
National Oceans Industries Association  
National Parks and Conservation Association  
National Recreation and Park Association  
National Research Council  
National Wildlife Federation  
Natural History Museum - Los Angeles  
Natural Research Council  
Natural Resources Defense Council  
New York Department of Education  
Ocean Advocates  
The Oceanic Society  
P & W. Software  
Reef Keeper - Florida  
The Rhett Company  
SAIC Maritime Center  
San Jose State University - Department of Geography  
Save Our Reefs  
Save Our Shores  
Scripps Institution  
Sunset Magazine  
Teledyne Brown Engineering  
United Nations Environmental Programs -  
Nairobi  
University of California - Berkeley  
University of California - Los Angeles  
University of Texas - Marine Mammal  
Program  
Vector Omni - International  
The Whale Center  
Whales Alive - Australia  
Whale Fund  
Whale Museum  
Wilderness Society  
William Wanket, Inc.  
Woods Hole Oceanographic Institution  
World Wildlife Fund - U.S.

#### **LOCAL INTEREST GROUPS**

Aaron's Dive Shop  
Activity Owners Association of Hawaii  
Ala Moana Pacific Center  
Alexander and Baldwin  
American Fisheries Society, Hawaii Chapter  
American Hawaii Cruise Lines  
Animal Rights Hawaii  
Architects, Hawaii, Ltd.

Atlantis Submarine - Hawaii  
BHP Petroleum Americas (Hawaii), Inc.  
Belt Collins, Hawaii  
Bill's Scuba Shack  
Bishop Museum  
Carl Smith et. al (inc).  
Center for Whale Studies  
CEROS  
Chaminade University - Biology Dept.  
Chevron USA, Inc.  
Chamber of Commerce of Hawaii  
Citizens for the Protection of the North  
Kohala Coast  
Clean Islands Council  
Club Lanai  
Council of Hawaii Organizations  
Dive Maui  
Earth Island Institute  
Earthtrust  
Elsa Nature Conservancy - Japan  
Environment Hawaii  
Environmental Science Designs  
Expeditions  
Estate of James Campbell  
Friends of the Hana Coast  
Friends of the Makalawena  
Friends of Queen's Beach  
Friends of the Puako Reef  
Garden Island Times  
Garden Island Trollers  
Gemini Charters  
Grove Farms - Kauai  
Group 70 International  
Hanalei Community Association  
Hawaii Audubon Society  
Hawaii Boaters Council  
Hawaii Environmental Education Association  
Hawaii Fishermen's Association  
Hawaii Fishing News  
Hawaii Hocht Ltb.  
Hawaii Hotel Association  
Hawaii IMAX  
Hawaii Maritime Center  
Hawaii Nature Center  
Hawaii Ocean Industry Fund  
Hawaii Pacific University  
Hawaii Whale Research Fund  
Hawaii Wildlife Fund  
Hawaii Visitors Bureau  
Hawaii's Thousand Friends  
Hawaiian Tug/Young Bros.  
Helbert, Haster and Yee  
Hinatea Sportfishing  
Honolulu Advertiser

Honolulu Star Bulletin  
Honolulu Weekly  
Iao School  
Kaanapali Beach Resort Assn.  
Kailua Elementary School  
Kamehameha Schools  
Kaneohe Bay Yacht Club  
Kau Landing Paper  
Kauai Friends of the Environment  
Kauai High School  
Kauai Times  
Kewalo Basin Marine Mammal Lab  
KGMB  
Kihei Community Assn.  
Kilauea Point National Wildlife Refuge  
KITV Channel 4 News  
Kona Iki Trollers  
Kukui'ula Development Corp.  
Lady Ann Cruises  
Lahaina Divers  
Lahaina Times  
Lahaina Town Action Committee  
Lahaina Yacht Club  
Lanaiians for Sensible Growth  
Life of the Land  
Living Ocean Adventures  
M& M Pacific Inc.  
Maalaea Boat and Fishing Club  
Matson Navigation  
Maui - Molokai Sea Cruises  
Maui Chamber of Commerce  
Maui Divers of Hawaii  
Maui Economic Development Board  
Maui Radio Group  
Maui Trailer Boat Club  
Maui Visitors Bureau  
Mauiana Magazine  
Mauna Kea Divers  
Mauna Lani Sea Ventures  
Mid-Pacific Hawaii Fisheries  
Mike Severns Diving  
Moanalua Garden's Foundation  
Molokai Advertiser - News  
Na Lani Video Services  
Na Pali Adventures  
Native Hawaii Ad. Council  
Native Hawaiian Fisherman Assn.  
The Nature Conservancy  
Natural Resources Defense Council, Hawaii  
Navitek  
Ocean Drifters  
Ocean Rafting Maui  
Ocean Riders  
Ocean Sport Waikoloa

Oceanic Institute  
Oceanit  
Ohana O Hawaii  
One Earth Foundation  
Pacific Islands Institute  
Pacific Museums Inc.  
Pacific Whale Foundation  
PANGALEA  
Papa Ola Lokahi  
People Opposed to the Whale Sanctuary  
Protect Kahoolawe Ohana  
Rainbow Divers  
Royal Hawaiian Cruises  
St. Andrew's Priory  
Save Our Bays and Beaches  
Save our Seas  
Sea Bird Cruises  
Sea Life Park  
Scotch Mist Sailing Charters  
Sierra Club  
Sierra Club Legal Defense Fund  
Thousand Friends of Kauai  
Tongg & Tongg  
TORCH  
TOS Hawaii. Inc.  
Trilogy Cruises  
Ultimate Rafting  
United Fishing Agency  
Wa Ula O Kai  
Waikalua Land Company  
Waikiki Aquarium  
West Hawaii Today  
West Maui Taxpayers Assn.  
West Maui Watershed Project  
Whales Alive  
Wilson Okamoto Assn.  
Windjammer Cruises  
Yama's Specialty Shop  
Zi-purr Charter

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## Appendix A

### *RESPONSES TO COMMENTS*

The FEIS/MP provides an analysis of the impacts of the proposed action and its alternatives. Public and agency review of the DEIS/MP helps to ensure the FEIS/MP is responsive to public and agency comments.

The DEIS/MP was released to the public in September 1995, initiating a 90-day public comment period that ended on December 15, 1995. Over twenty-five statewide informational meetings were held to assist the public in understanding the preferred alternatives and to answer questions and concerns. SRD also held seven formal public hearings throughout the main Hawaiian Islands. In total, over 250 written comments and oral testimonies were received by NOAA during the comment period. SRD reviewed and responded to all substantive comments which were not statements simply for or against the proposal. That is, those comments requiring additional explanation, analysis of data, or those which debated facts or conclusions reached in the DEIS/MP.

Significant issues and substantive comments were addressed in the response to comments section which follows and by making changes to the EIS, as appropriate. Because many comments were duplicative in nature, SRD summarized the similar substantive comments by issue (i.e., regulations), and then further defined subtopics (i.e., regulatory alternatives, future regulations). This allows the reader interested in a particular issue to easily identify that issue and NOAA's response.

#### **BOUNDARY**

**1. Comment:** All boundary alternatives should exempt commercial harbors from the Sanctuary and allow for further expansion of existing harbors. Harbor exemptions should also include approaches and off-shore anchorages.

**Response:** The Sanctuary boundary excludes major ports, harbors, and small boat basins primarily because they do not constitute humpback whale habitat. Whales tend to avoid such areas because of the number and types of activities that occur within such ports, harbors, and small boat basins (both in and out of the water). Such activities include, but are not limited to, vessel painting, shore-based boat cleaning, toxic paint releases from moored vessels, and sewage disposal. NOAA has determined that the nature and level of these activities are not appropriate for inclusion within the Sanctuary. By excluding these areas, NOAA will be able to focus Sanctuary management on the long-term protection of other areas that do constitute humpback whale habitat and are less heavily impacted by human activity. The list of excluded ports, harbors and small boat basins can be found at section 945.2 of these regulations. These final regulations add the Ala Wai small boat basin on Oahu to the list of excluded areas. While the Sanctuary regulations do not prohibit the construction of new harbors or the expansion of existing harbors conducted in compliance with a valid Federal or State permit, plans for such development within the Sanctuary will be reviewed by NOAA in order to offer recommendations and comments to ensure that Sanctuary resources are adequately protected. At that time, NOAA will determine whether to revise the Sanctuary boundary to exclude the new or expanded port, harbor or boat basin. Approaches to harbors and offshore anchorages are not excluded from the Sanctuary boundary because these areas are more frequently used by humpback whales and provide an important link between the nearshore and deeper water habitats.

**2. Comment:** NOAA should only include those areas on leeward sides of the islands in the Sanctuary boundary since that is where the whales seem to be located.

**Response:** NOAA disagrees. Humpback whale distribution studies over the last ten years have shown that humpbacks are commonly found in waters less than 100-fathoms throughout the main Hawaiian Islands (windward and leeward). Though distribution studies have shown that humpbacks can be found in greater numbers in leeward areas, they still use windward areas for breeding, calving, and nursing activities. At present, scientists do not fully understand distribution patterns and habitat preference for humpbacks, though it is accurate to say that humpback whales are distributed throughout the main Hawaiian Islands, particularly in waters less than 100-fathoms. Given that humpback whales are very dynamic and swim among the different islands, NOAA has determined that the boundary should include windward and leeward sides of the islands.

**3. Comment:** NOAA should adopt a Sanctuary boundary that includes waters around all the main Hawaiian Islands from the shoreline to the 1000-fathom isobath to better encompass all the whales' habitat.

**Response:** NOAA recognizes that this boundary alternative would include most if not all the humpback whale habitat in the main Hawaiian Islands, but has concluded that this alternative is far too large for effective management under current and foreseeable financial and staff resources. Most of the area in this boundary alternative is located significantly offshore (e.g., up to 40 miles from each main Hawaiian Island). The dispersion of management activities (e.g., research and enforcement) in these areas would strain the program's ability to effectively manage other nearshore areas of the Sanctuary. Since most human and whale activities and interactions occur in relatively shallow waters (generally less than 100-fathoms), NOAA believes the focus of Sanctuary management efforts would be better placed in these areas. This alternative also fails to consider the importance of U.S. Department of Defense (DOD) military use areas in Hawaii that are essential to national security and defense.

**4. Comment:** NOAA should adopt a zoned boundary; an outer boundary around the 1000-fathom isobath (no regulations -- advisory only) and an inner boundary constituting the Congressionally-designated boundary.

**Response:** NOAA disagrees. Although this option would incorporate most humpback whale habitat in the Sanctuary, NOAA believes that such a boundary is too large to effectively manage (see previous response). NOAA believes that a 100-fathom isobath boundary is more manageable since research, education, and other resource protection measures can be focused in those nearshore areas where whales and human activities are more likely to come into conflict. This core 100-fathom boundary is included as the NOAA preferred boundary alternative, excluding DOD military use areas that are essential to national security and defense (see response #8).

**5. Comment:** The shoreline does not need to constitute the Sanctuary's border since whales don't go that close to shore.

**Response:** The shoreline was chosen as the Sanctuary's inshore boundary because the purpose of the Sanctuary is to protect the humpback whale and its habitat. Humpback whales use the shallow, nearshore areas (less than 100-fathom isobath) around the main Hawaiian Islands for certain reproductive activities (i.e., calving and nursing). The bathymetry around the Hawaiian Islands is variable, with some adjacent marine areas dropping off steeply very close to shore and, therefore, whales may be found in these areas. Further, impacts to the nearshore waters of humpback whale habitat could impact waters further offshore as well, where whales are also found. The shoreline is also more easily recognized as a definable, uniform inshore boundary than

are offshore areas. Finally, a boundary that includes the shoreline also provides more protection for stranded whales or whale carcasses that wash up on shore.

**6. Comment:** Define what makes a boundary manageable versus non-manageable. The Statewide boundary is too large for NOAA to effectively manage.

**Response:** The National Marine Sanctuary Program has 14 different sites, each encompassing unique resources in a defined geographic area. Their sizes range from 0.25 square miles to over 5,000 square miles. Manageability must be looked at on a site by site basis taking into account area's size and resources, existing management authorities, accessibility to the site, types and impacts of human uses, suitability for research, monitoring and enforcement activities, and fiscal and staffing resources of the National Marine Sanctuary Program. In selecting a sanctuary boundary, NOAA assesses whether the boundary will both facilitate the goals for which the sanctuary was designated and whether it is manageable given resource and practical limitations. NOAA has determined that it could successfully supplement and help coordinate research, long-term monitoring, education, and enforcement programs within a statewide Sanctuary boundary (with certain exceptions) encompassing the waters from the shoreline to the 100-fathom isobath.

**7. Comment:** NOAA should adopt the Congressionally designated boundary (Maui County and part of Kauai).

**Response:** Although Maui County has historically had and continues to have the highest reported concentration of humpback whales, other areas of the State (i.e., Kauai, Oahu, and the Big Island) include important whale habitat used for breeding, calving, and nursing activities. Many different scientific research studies have concluded that humpback whales are primarily distributed within the 100-fathom isobath throughout the main Hawaii Islands, including Kauai, Oahu, and the Big Island. NOAA believes that a statewide boundary is necessary to provide comprehensive and coordinated management of humpback whales throughout Hawaii, and that the benefits associated with a National Marine Sanctuary, including research and educational efforts, and enhanced enforcement of existing laws, should be available to all the islands of the State.

**8. Comment:** The expansion of the Sanctuary beyond Maui County is not justified, especially in light of the fact that the military exclusion zones contain high reported concentrations of humpback whales (West Kauai, Oahu). Military areas should not be excluded from the boundary since activities occurring in these areas can impact the whales.

**Response:** In choosing a boundary for a sanctuary, NOAA must take into consideration many factors, including a area's size, resources, manageability, and the human uses of the area (see earlier response). The Department of Defense (DOD) is a significant ocean user in Hawaii, and many of its activities are essential to our nation's security and defense. NOAA has formally consulted with DOD on their existing military activities and has concluded that they have sufficient resource protection measures within their standard operating procedures to ensure the protection of humpback whales and their habitat. DOD activities remain subject to the provisions of the Marine Mammal Protection Act (MMPA), the Endangered Species Act (ESA), and other laws and regulations relating to water quality and the. To facilitate DOD military uses, NOAA, in consultation with the State of Hawaii and DOD, determined that the Hawaii Sanctuary boundary should not include certain military use areas in order to support the military's interests and activities now as well as into the future, and to maintain our nation's national security interests.